ZAIN ACADEMY PRESENTS 2ND EDITION - 2019.

CERTIFIED MANAGEMENT ACCOUNTANT (CMA), US - PART 1.

A study book that delivers important concepts required in a management accountant.

EXCELLENCE, CREATIVITY AND PATIENCE ARE KEY INGREDIENTS TO BECOME A STAR.

MUHAMMAD ZAIN.

بسم الله الرحمن الرحيم

In the Name of Allāh, the Most Gracious, the Most Merciful

CERTIFIED MANAGEMENT ACCOUNTANT (CMA), US

PART 1 – FINANCIAL REPORTING, PLANNING, PERFORMANCE, AND CONTROL

STUDY NOTES

EFFECTIVE TILL 31 DECEMBER 2019

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About the Mentor

Muhammad Zain has passed Uniform Certified Public Accountant **(CPA)** exams from American Institute of Certified Public Accountants (AICPA), US in February 2018, Certified Management Accountant **(CMA)** exams from Institute of Management Accountants (IMA), US and Certified Internal Auditor **(CIA)** exams from Institute of Internal Auditors (IIA), US in March 2014. He has completed his Masters of Business Administration **(MBA)** in March 2010 from University of Karachi, Pakistan. He earned his Bachelors of Commerce **(BCOM)** from the same University in November 2007.

He has working experience of more than 10 years which includes five years of Public Accounting experience of working in EY Ford Rhodes, Pakistan – a member firm of Ernst & Young Global Limited (big4) and more than 5 years of working experience in Industry in managerial capacity.

He founded **Zain Academy** in 27 February2017 with the mission ***"Knowledge for ALL"*** and objective to *"disseminate education for all candidates who wish to change the landscape of our working environment, believe in continuous education and strive for the best."*

Readers are welcomed to contact him for ***online interactive sessions*** for any part of CPA, CMA or CIA.

07 October 2018

Dear **CMAs**,

السلام عليكم

peace be upon you

It is my great honor to present you the 2ND edition of **Certified Management Accountant (CMA) – Part 1 – Financial Reporting, Planning, Performance, and Control** Study Notes.

These Study Notes are not copyrighted and are universally accessible to all. You are permitted to use these notes and distribute them to the other candidates as well.

I have tried to keep the materials simple, clear and concise. I welcome feedback from the potential readers. These materials are relevant till 31 December 2019. However, please do check the Facebook page https://www.facebook.com/zainacademy for updates. Extreme care is required when rendering professional advice to clients.

Readers are encouraged to provide a review / feedback on the materials on https://www.facebook.com/zainacademy/reviews/. This review will help prospective candidates to benefit from improvements in the materials.

I dedicate this work to my family, teachers and colleagues who have always believed in my abilities and guided me through the toughest of times.

May the **ALLAH**, **Creator of the Heavens and Earths** bless you **ALL** in this Life and in particular the Life Hereafter as well.

With Love and Care,

Muhammad Zain

CPA, CMA, CIA

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SECTION A – External Financial Reporting Decisions (Weightage 15%)

S.No	Questions	Answers
1.	Who are direct users of financial statements?	Direct users are directly affected by a company's financial results and stand to lose money if the company has financial problems. Direct users include investors and potential investors, employees, management, suppliers, and creditors.
2.	Who are indirect users of financial statements?	Indirect users are people or groups who represent direct users. Indirect users include financial analysts and advisors, stock markets, and regulatory bodies.
3.	What are the five financial statements?	1) Balance Sheet (also called the Statement of Financial Position) 2) Income Statement 3) Statement of Cash Flows 4) Statement of Comprehensive Income 5) Statement of Changes in Stockholders' Equity
4.	What does the balance sheet show?	The balance sheet provides information about an entity's assets, liabilities, and owners' equity **at a point in time**.
5.	What are the elements of the balance sheet?	1) Assets 2) Liabilities 3) Equity (or net assets)
6.	What is the proprietary theory?	Proprietary theory is way that the balance sheet presents the assets, liabilities, and equity, showing that the net assets belong to the owners of the company.
7.	What is an asset?	Future economic benefits obtained or controlled by an entity as a result of past transactions or events.
8.	What is a liability?	Probable future economic sacrifices of economic benefits that arise from the present obligations of the company to transfer assets or provide services to other entities in the future as a result of past transactions or events.
9.	What is equity?	The remaining balance of assets after the subtraction of all liabilities. This is the amount of the company's assets that are **owned by and owed to the owners**.
10.	What are current assets?	Assets that will be converted into cash or sold or consumed **within 12 months or within one operating cycle** if the operating cycle is longer than 12 months.
11.	What are current liabilities?	Obligations that will be settled through the use of current assets or by the creation of other current liabilities.
12.	What are the six categories of equity?	1) Capital stock 2) Additional paid-in capital 3) Retained earnings 4) Accumulated other comprehensive income items 5) Treasury stock 6) Non-controlling interest
13.	What does the balance sheet help assess?	The balance sheet provides a basis for computing rates of return, evaluating the capital structure of the business, and predicting a company's future cash flows.

		The balance sheet helps to assess the company's liquidity, financial flexibility, solvency, and risk.
14.	What are some of the limitations of the balance sheet?	• Many assets are not reported on the balance sheet. • Values of certain assets are measured at historical cost. • Judgments and estimates determine the value of many items reported in the balance sheet. • Most liabilities are valued at the present value of cash flows discounted at the rate that was current when the liability was incurred, not at the present value of cash flows discounted at the current market interest rate.
15.	What does the income statement show?	The results of a company's operations during a given period of time.
16.	What does the income statement help assess?	The amounts, timing, and uncertainty of (or prospects for) future cash flows.
17.	What are the four elements of the income statement?	1) Revenues 2) Expenses 3) Gains 4) Losses
18.	What are revenues?	Revenues represent inflows of assets or reductions in liabilities as a result of delivering goods or providing services that are the **entity's main or central operations**.
19.	What are expenses?	Expenses are outflows of cash or other assets or the incurrence of liabilities as a result of purchasing goods or services that are necessary to provide the entity's **main or central operations**.
20.	What are the three methods of recognizing expenses?	1) Cause and effect 2) Systematic and rational allocation 3) Immediate recognition
21.	What are gains?	Increases in equity as a result of transactions that are **not** part of the company's main or central operations and that do not result from revenues or investments by the owners of the entity.
22.	What are losses?	Decreases in equity as a result of transactions that are **not** part of the company's main or central operations and that do not result from expenses or distributions made to owners of the entity.
23.	What is a discontinued operation?	A disposal of a component or group of components that is either disposed of or held for sale and represents a **strategic shift** that has or will have a major effect on the entity's operations and financial results.
24.	What is the primary purpose of the statement of cash flows?	The primary purpose of the statement of cash flows is to provide information regarding **receipts and uses of cash** for the company during a specified period of time.
25.	What are the three categories of activities on the statement of cash flows?	1) Operating activities 2) Investing activities 3) Financing activities

26.	What are the two methods of preparing the statement of cash flows?	1) Direct method 2) Indirect method
27.	Under the indirect method, what account is adjusted to calculate cash flows from operations?	Net income is adjusted under the indirect method.
28.	What are the five categories of adjustments under the indirect method?	1) Eliminate noncash income and expense items. 2) Eliminate investing and financing activity events whose results are included in the income statement. 3) Include the effect of any operating activities that were not included in net income but did have a cash effect and exclude (eliminate) the effect of any events that are included in net income but did not have a cash effect. 4) Adjust cash flows from the purchase, sale, and maturity of trading securities. 5) Specific disclosures required with the indirect method.
29.	What is the adjustment to net income for an increase in the net receivable position during the year?	The amount of the increase in net accounts receivable is **subtracted from net income** because the cash corresponding to this amount of revenue recognized during the period was not received during the period. A decrease in receivables during the period is added to income.
30.	What is the adjustment to net income for the change in an asset during the period?	• The amount of an **increase** in an asset account should be **deducted** from net income. • The amount of a **decrease** in an asset account should be **added** to net income.
31.	What is the adjustment to net income for the change in a liability during the period?	• The amount of an **increase** in a liability account should be **added** to net income. • The amount of a **decrease** in a liability account should be **deducted** from net income.
32.	How are noncash investing and financing activities reported on the statement of cash flows?	Separately in a schedule at the end of the statement of cash flows.
33.	What is included in the statement of comprehensive income?	Comprehensive income includes all transactions of the company **except for those transactions that are made with the owners of the company** (such as distribution of dividends or the sale of shares).
34.	What are the four basic principles of accounting used to record and report transactions?	1) Measurement 2) Revenue recognition 3) Expense recognition 4) Full disclosure
35.	What are different bases of measurement?	1) Historical cost 2) Fair value
36.	What is matching?	Revenues should be recognized in the same period as the expenses that generated those revenues are expensed.

37.	What items are included in cash?	1) Cash (of any currency) 2) Savings accounts 3) Checking accounts
38.	What are cash equivalents?	Very **short-term, highly-liquid** investments that have a maturity of **three months or less** when acquired by the company.
39.	What are the two allowed methods for valuing accounts receivable?	1) Percentage of sales method 2) Percentage of receivables method
40.	What is calculated and what is a residual balance under the percentage of sales method?	The amount of bad debt expense is calculated and the ending balance in the allowance account is the residual amount.
41.	What is calculated and what is a residual balance under the percentage of receivables method?	The ending balance in the allowance account is calculated and the amount of bad debt expense is the residual amount.
42.	What are the two ways that receivables may be factored?	1) Without recourse 2) With recourse
43.	How is the cash to be received by the seller of receivables calculated?	Face value of the accounts receivable – Factoring fee (a % of the face value of the receivables) – Factor's holdback for merchandise returns (a % of the face value of the receivables) = **Funds deposited to the seller's account** – Interest expense = **Cash available to the seller to withdraw**
44.	What value should inventory be recorded at when it is purchased?	Inventory should be recorded in the books at the amount that includes **all of the costs paid for getting the inventory ready and available for sale**. Costs include the cost of the inventory, shipping costs to receive the inventory, insurance, taxes and tariffs, duties, and all other costs related to receiving the inventory to sell to the customer.
45.	Are in-transit goods included in inventory?	The owner of the goods at year-end is determined by the terms of shipping. • Goods sent **FOB Shipping Point** belong to the buyer from the moment the seller gives them to the shipping company. • Goods sent **FOB Destination** belong to the seller until the buyer receives them.
46.	When are consigned goods included in inventory?	Consigned goods are included in the inventory of the company has the goods out on consignment. Ownership of the consigned goods transfers directly from the producer of the goods to the final purchaser.
47.	What are the cost flow assumptions for inventory?	1) First in First Out (FIFO) 2) Last in First Out (LIFO) 3) Average Cost 4) Specific Identification

48.	Which inventory method is not permitted under IFRS?	LIFO is prohibited under IFRS.
49.	When prices are rising, which inventory method has the highest balance of ending inventory?	FIFO
50.	When prices are rising, which inventory method has the highest COGS?	LIFO
51.	When prices are rising, what inventory method has the highest gross profit?	FIFO
52.	Under Lower of Cost or Market, what is the ceiling value and how it is calculated?	The ceiling value is the net realizable value. Selling price - Cost to complete and dispose = **Net realizable value**
53.	Under Lower of Cost or Market, what is the floor value and how it is calculated?	The floor value is the net realizable value minus a normal profit margin.
54.	What are the three methods used to account for investments and when are they used?	1) Fair value method – used when the investor owns less than 20% of the investee company's stock 2) Equity method – used when the investor owns 21-50% of the investee company's stock 3) Consolidation - used when the investor owns 51% of the investee company's stock
55.	What are the three classifications of debt securities using the fair value method?	1) Trading 2) Held-to-maturity 3) Available-for-sale
56.	What are the two classifications of equity securities using the fair value method?	1) Trading 2) Available-for-sale
57.	Where is the holding gain or loss reported for trading securities?	On the income statement.
58.	Where is the holding gain or loss reported for available-for-sale securities?	On the statement of other comprehensive income.
59.	What are the main adjustments in the consolidation process?	1) Eliminating intercompany receivables and payables 2) Eliminating the effect of intercompany sales of inventory 3) Eliminating the effect of intercompany sales of fixed assets 4) Eliminating the parent's investment account

60.	Fixed assets are recorded using what cost?	Fixed assets are recorded at historical cost, which is the amount paid for the **asset and all other costs that are necessary to get the asset ready for use**.
61.	What is depreciation?	Depreciation is the systematic and rational allocation of the costs of a fixed asset over its expected useful life. This is the process by which the expense of the asset is **matched** with the revenue it generates.
62.	What are the methods of depreciation?	1) Straight-line 2) Double declining balance 3) Sum-of-the-years'-digits 4) Units of production
63.	When are intangible assets amortized?	Whether an intangible asset is amortized or not depends on its useful life: • **If the asset has a determinable, limited life**, it is amortized over that useful life. • **If the asset does not have a determinable useful life**, the asset is not amortized, but it must be tested regularly for impairment.
64.	What is goodwill and how is it reported on the balance sheet?	Goodwill is the amount that a purchaser has paid for a company that is greater than the fair value of the net identifiable assets. Purchased goodwill must be reported as a **separate line item on the balance sheet**.
65.	What are the two types of warranties?	1) An **expense warranty** is a manufacturer's warranty given along with the sale of the product. It requires no additional payment from the customer. 2) A **sales warranty** is an extended warranty that is sold separately from the product. Sales warranties may be sold by the manufacturer, a reseller, or a third party.
66.	What are common types of off-balance sheet financing?	1) Operating leases 2) Selling of receivables 3) Joint ventures 4) Non-consolidated subsidiaries 5) Variable interest entities
67.	What is book income and what is taxable income?	Book income is the company's income as calculated according to US GAAP. Taxable income is the income on which the company must pay taxes as calculated according to the tax code.
68.	How do temporary timing differences arise?	Temporary timing differences arise when an item is not recognized for both book and taxable income in the same period.
69.	What is a deferred tax asset and how does it arise?	A deferred tax asset is in essence an "overpayment" of taxes when taxable income is higher than book income. A deferred tax asset is created by either of the following: • An item that is **taxable revenue in the current period** but is not included in book revenue. • An **expense that is reported on the income statement** for the current period but is not deductible for tax purposes.

70.	What is a deferred tax liability and how does it arise?	A deferred tax liability is in essence an "underpayment" of taxes because taxable income is lower than book income. A deferred tax liability is created by either of the following: • An item **included in revenue for book purposes** but not included in revenue for tax purposes. • An **expense that is deductible** for tax purposes but is not an expense for book purposes.
71.	How is the deferred income tax or expense calculated?	It is calculated as the **amount of change** in the total deferred tax asset and liability position of the company **during the period**.
72.	How are deferred tax assets and liabilities presented on the balance sheet?	Deferred tax assets may be current or non-current and deferred tax liabilities may also be current or non-current. An individual deferred tax liability or asset is classified as current or non-current based on the **classification of the related asset or liability** for financial reporting purposes. A deferred tax item that is not related to an asset or liability for financial reporting is classified as current or non-current according to when the reversal is expected to occur.
73.	What is a permanent timing difference?	Permanent timing differences are items that cause differences between taxable income and book income that do not reverse over time. Permanent differences **do not give rise to deferred tax assets or liabilities** because a permanent timing difference will be recognized for **either** book or tax purposes, **not both**.
74.	How are net operating losses treated?	The company may elect to **carry back** the net operating loss two years and receive refunds for up to 100% of income taxes paid in those years. Any loss that remains after the 2-year carryback may be **carried forward** up to 20 years to offset future taxable income.
75.	What is a lease?	A lease is an agreement between a lessor (the owner of an asset) and a lessee (the entity that is going to use the asset) that conveys the right to use specific property for a stated period of time in exchange for a stated payment.
76.	What are the two classifications of leases?	1) Operating leases – a rental agreement 2) Finance leases – a purchase/sale agreement
77.	What are the criteria for a capital lease?	If any one of these four criteria is met, it is a capital lease. 1) Ownership transfers at the end of the lease. 2) The lease includes a written bargain purchase option. 3) The PV of the minimum lease payments is equal to or more than 90% of the fair market value of the asset at the time the lease is entered into. 4) The lease term is 75% or more of the remaining estimated economic useful life of the asset at the time the lease is entered into.
78.	What are the types of dividends that a company can pay?	1) Cash dividend 2) Liquidating dividend 3) Property dividend

		4) Stock dividend
79.	How is a stock dividend valued?	A small stock dividend (less than or exactly 25%) is valued at the **fair value** of the shares. A large stock dividend (more than 25%) is valued at the **par value** of the shares.
80.	What are the two types of dividends for preferred shares?	1) Noncumulative 2) Cumulative
81.	What are cumulative preferred dividends?	• A cumulative dividend is one that is earned each year by preferred shares. • For those years when the dividend is not paid, the amount not paid is "in arrears." • Dividends in arrears must be paid in full before common dividends are paid.
82.	What is treasury stock?	Treasury stock is shares of a company that have been sold to other parties and then reacquired by the company.
83.	What are the three classifications of shares on the balance sheet?	1) Authorized shares 2) Issued shares 3) Outstanding shares
84.	When is revenue recognized?	Revenue is recognized when it is: 1) Realized or realizable and 2) Earned
85.	When may revenue be recognized at the completion of production?	1) The item is readily saleable as soon as it is completed. 2) There is a known market price for the item and there are minimal selling costs. 3) The units are **homogeneous** (that is, identical to each other).
86.	When is the installment method of profit recognition used?	The installment method is used when an item is sold on credit, it will be paid over a period of time in the future, and the **amount that will actually be collected is not certain**.
87.	When is the cost recovery method of profit recognition used?	It is used when the company makes a credit sale and there is **no basis to determine the collectability of the future payments**. The cost recovery method is the **most conservative method** of income recognition.
88.	What are the two methods of accounting for long-term contracts?	1) Completed contract method 2) Percentage-of-completion method
89.	What are the three steps of the percentage-of-completion method?	1) Calculate the amount of the total expected profit on the project. 2) Determine what percentage the project is completed, based on costs incurred to date. 3) Determine how much of the profit should be recognized in the current period.
90.	How is the expected profit calculated for a long-term contract?	Contract price − Costs **actually incurred** to date − Costs **expected** to be incurred in the future = **Expected profit (loss) on the project**

<table>
<tr><td>91.</td><td>How is the percent complete calculated?</td><td>$$\frac{\text{Total Costs Incurred to Date (including prior periods)}}{\text{Costs Incurred to Date + Estimated Cost to Complete}}$$</td></tr>
<tr><td>92.</td><td>How is the profit to be recognized under the completed contract method calculated?</td><td>Expected Profit
× Percentage Complete
= Total Profit to Be Recognized to Date
– Profit Previously Recognized
= Profit to Recognize This Period</td></tr>
<tr><td>93.</td><td>How are expected losses recognized in long-term contracts?</td><td>Under both methods, losses are recognized in full as soon as there is an expected loss on a contract.</td></tr>
<tr><td>94.</td><td>How are gains or losses from discontinued operations reported?</td><td>All gains or losses that are incurred by the discontinued segment are reported in the period in which the gain or loss occurred and the gains or losses are reported net of associated taxes.</td></tr>
<tr><td>95.</td><td>How are short-term receivables valued for the financial statements?</td><td>For financial statement presentation, short-term receivables are valued and reported at net realizable value, or the net amount of cash expected to be received. The net amount the firm expects to receive is most likely different from the amount that is legally due. This difference between these two amounts is because some customers will not pay what they owe and there may be returns expected in the future.

Therefore, determining the net realizable value of accounts receivable involves estimation of uncollectible receivables and any returns or allowances to be granted.</td></tr>
<tr><td>96.</td><td>How do LIFO and FIFO impact inventory calculations under rising and falling prices?</td><td><table><tr><th></th><th>Ending Inventory</th><th>Cost of Goods Sold</th><th>Gross Profit</th></tr><tr><td>Rising Prices</td><td>FIFO Higher</td><td>LIFO Higher</td><td>FIFO Higher</td></tr><tr><td>Falling Prices</td><td>LIFO Higher</td><td>FIFO Higher</td><td>LIFO Higher</td></tr></table></td></tr>
<tr><td>97.</td><td>How does IFRS differ from US GAAP?</td><td>While IFRS is principles-based, US GAAP is rules-based with extensive interpretive guidance for individual industries and specific examples for auditors and practitioners.</td></tr>
<tr><td>98.</td><td>How does the percentage of receivables method calculate potentially collectible receivables?</td><td>Under the percentage of receivables method, the company estimates what percentage of its outstanding receivables will not be collected and then calculates what the ending balance in the allowance account needs to be so that the net receivables balance will be equal to the amount that the company expects to collect.</td></tr>
<tr><td>99.</td><td>How does the percentage of sales method calculate potentially collectible receivables?</td><td>The percentage of sales method uses the amount of credit sales made during the period to estimate the percentage of those credit sales that will not be collectible. The company may use historical data or any other method that makes sense to determine the percent of sales that will not be collected.</td></tr>
</table>

100.	How is **double declining balance depreciation** calculated?	In double declining balance (DDB) method we use a rate that is **two times** the percentage that would be recognized under the straight-line method. In addition, that percentage is applied to the **net book value** of the asset at the beginning of each year. The annual depreciation expense is calculated as: Double declining rate × book value of the asset at the beginning of the year
101.	How is **straight-line depreciation** calculated?	Straight-line depreciation (STL) is the simplest method and results in an equal amount of depreciation expense charged to the income statement each period. It is calculated as: Depreciable Amount ÷ Estimated Useful Life
102.	How is **sum-of-the-years'-digits depreciation** calculated?	In the sum-of-the-years'-digits method, the amount of depreciation to be recorded for any given period is calculated using fractions based on the estimated useful life of the asset. Under the sum-of-the-years'-digits method the depreciable base is multiplied by a fraction that is determined using the useful life of the asset. The denominator (bottom number) is a sum of all of its expected years of life. Sum of the Years' Digits = [n(n + 1)] ÷ 2
103.	How is **units of production depreciation** calculated?	Under the units of production method, the number of units the asset will be able to produce over its useful life is determined. Then the appropriate ratio of the depreciable amount is recognized as depreciation expense for each year of the asset's estimated useful life, based on the actual production of the asset during that period.
104.	What are **appropriated retained earnings** and what are some **examples**?	Appropriated retained earnings are retained earnings that are not distributed to the shareholders. A company may decide to appropriate retained earnings for several reasons: • Creating a reserve to build a plant. • Acquisitions. • Debt reduction. • Meeting the requirements of a bond or a restriction on the payment of dividends imposed by a loan covenant. • Providing for research and development or new product development. • Marketing campaigns. • As a reserve against an expected loss. • Simply providing for the future.
105.	What are **authorized shares**, **issued shares**, and **outstanding shares**?	The number of **authorized shares** is the total number of shares that the company has registered. The number of authorized shares is the maximum number that can be sold. Authorized shares can be issued or unissued, or outstanding or not outstanding. The number of **issued shares** is the number of shares that have been sold to an outside party at any point in the past. Issued shares may

		currently be held either by others or by the company itself as treasury shares. The number of **outstanding shares** is the number of shares that are currently owned by other parties. Outstanding shares will be equal to the number of issued shares minus the number of shares held as treasury shares by the company itself.
106.	What are **callable preferred shares?**	Callable preferred shares can be retired at the option of the corporation.
107.	What are **cash equivalents?**	Cash equivalents are defined as very **short-term, highly-liquid** investments that have a maturity of **three months or less** when acquired by the company. It is important that the calculation in respect to the time to maturity is made from the time that the company acquired the item, not from its original maturity period when issued. Money market accounts in banks and money market mutual funds are included in the definition of cash equivalents because they are immediately accessible.
108.	What are **convertible preferred shares**?	These shares may be converted into common shares at the option of the shareholder. If they are converted, the newly issued common shares are recorded at the book value of the preferred shares that were converted. There is **no gain or loss** recorded on this transaction, as the newly issued common shares replace the preferred shares on the books.
109.	What are **discontinued operations**?	A discontinued operation is defined as a disposal of a component or group of components that is either disposed of or held for sale and represents a **strategic shift** that has or will have a major effect on the entity's operations and financial results. A strategic shift that has or will have a major effect on operations and financial results could include disposing of operations in a major geographical area or disposing of a major line of business, a major equity investment, or other major parts of the entity.
110.	What are **dividends**?	Dividends are the distribution of current profits and/or the retained earnings of the company to its owners. The declaration of cash or property dividends reduces total stockholders' equity as a result of either the distribution of an asset (cash or other property) or the incurrence of a liability (dividends payable if the dividend is not immediately distributed).
111.	What are **equity securities**?	Equity securities are accounted for using the fair value method when the investor owns less than 20 percent of the investee company's outstanding common stock and has little or no influence over the investee. Equity securities under the fair value method are classified as either **trading securities** or **available-for-sale securities**. Equity securities **cannot be classified as held-to-maturity** since equity has not maturity date.

112.	What are examples of **noncash investing** and **fi nancing transactions**?	• Debt converted to equity. • Borrowing money to purchase a fixed asset when the lender pays the loan proceeds directly to the seller of the asset to make sure the loan proceeds are used as intended. • Buying or selling fixed assets for something other than cash (for example, stock). • Obtaining a building or other item by gift. • Exchanging noncash assets or liabilities for other noncash assets or liabilities.
113.	What are **fixed assets (property, plant, and equipment)**?	Property, plant, and equipment (PP&E) are tangible assets used in operations and which will continue to be used beyond the end of the current period. When the fixed assets are purchased, they are recorded at their cost, including installation costs needed to bring the asset to usable condition. The cost is then expensed over the life of the asset through depreciation, amortization, or depletion (except for land, which is not depreciated).
114.	What are **four potential events** that will cause a **difference** between **book** and **taxable income**?	1. A revenue item is recognized as taxable income before it is recognized in the accounting records as revenue. 2. An expense item is deductible from taxable income before it is deducted in the accounting records as an expense. 3. A revenue item is recognized in the accounting records as a revenue before it is recognized as taxable income on the tax return. 4. An expense item is deducted in book income as an expense before it is deductible in taxable income.
115.	What are **intangible assets**?	Intangible assets do not have physical substance but they provide benefit to the firm over a period of time. Intangible assets may be either purchased or developed internally. However, because an asset that is recorded on the balance sheet comes about only as a result of a prior transaction, internally-generated intangible assets are generally not recorded on the balance sheet.
116.	What are **leasehold improvements** and how are they accounted for?	Leasehold Improvements are additions a lessee makes to a building or property that the lessee cannot remove when the lease period is over. For example, if a lessee purchases an air conditioning system for a leased building, it is considered a “leasehold improvement” and cannot be uninstalled and taken away once the lease expires. The cost of leasehold improvements should be amortized over the **shorter of the following: the remaining lease term or the useful life of the improvements**.
117.	What are liquidating dividends?	Liquidating dividends are those dividends that are a return **of** capital rather than a return **on** capital. These occur when the dividend distributed is greater than the amount in retained earnings. Any dividend paid in excess of the balance in retained earnings will be classified as a liquidating dividend because there are no profits to distribute.

118.	What are **permanent accounts**?	Permanent accounts are not closed out at the end of each accounting period but rather their balances are cumulative. They keep on accumulating transactions and changing with each transaction, year after year.
119.	What are **permanent timing differences** with regards to income tax?	Permanent timing differences are items that cause differences between taxable income and book income but do not reverse over time. Permanent differences **do not give rise to deferred tax assets or liabilities** because of the fact that by definition a permanent timing difference is something that will be recognized for either book or tax purposes, but not both.
120.	What are redeemable preferred shares?	These preferred shares may be sold back to the company at a specified price at the **option of the shareholder**.
121.	What are **temporary accounts**?	The accounts that record revenues, expenses, gains and losses are **temporary accounts**. They are also **closed to a permanent account** (that is, retained earnings on the balance sheet) at the end of each period (that is, for a fiscal year). At the beginning of each fiscal year, the balances in the income statement accounts are zero.
122.	What are the **criteria** for classification as **extraordinary items**?	1. **Unusual nature**. The event or transaction should be highly abnormal and be clearly unrelated to the ordinary and typical activities of the company. 2. **Infrequency of occurrence**. The event or transaction should be something the company does not reasonably expect to recur in the foreseeable future.
123.	What are the four main inventory **cost flow assumptions**?	1. **First in First Out (FIFO)**, in which we assume that the item sold to the customer is the earliest unit purchased by the seller that has not yet been sold (that is, the **oldest** item in inventory). 2. **Last in First Out (LIFO)**, in which we assume that the item sold to the customer is the latest unit purchased by the seller (that is, the **newest** item in inventory). 3. **Average Cost**, in which we sum the costs paid for all the individual units of a given item in inventory and divide by the number of units purchased to find the average cost for each unit. 4. **Specific Identification**, in which we actually keep track of each unit of inventory individually. The specific identification method is used for low quantity, high value inventory items, such as merchandise in a jewelry store or serialized electronic merchandise where records are kept by serial number.
124.	What are the **limitations** of financial statements?	• Measurements are made in terms of money, so qualitative aspects of a firm are not included. Only transactions recorded in the accounting records are in the financial statements.

		• Information supplied by financial reporting involves estimation, classification, summarization, judgment, and allocation. • Financial statements primarily reflect transactions that have already occurred; consequently, many aspects of them are based on historical cost. • Only transactions involving the entity being reported on are reflected in that entity's financial reports. However, transactions of other entities, such as competitors, may be very important. • Financial statements are based on the going-concern assumption. If that assumption is invalid and the business is facing liquidation, the appropriate attribute for measuring financial statement items is liquidation value. If a business will be liquidated, it is not appropriate to use historical cost, fair value, net realizable value, or any other valuation measure for a going-concern's financial statements.
125.	What are the **main adjustments** that need to be made to **eliminate intercompany transactions**?	• Eliminating intercompany receivables and payables • Eliminating the effect of intercompany sales of inventory • Eliminating the effect of intercompany sales of fixed assets • Eliminating the parent's investment account
126.	What are the **six categories of equity**?	• **Capital stock**. The par or stated value of the shares issued. • **Additional paid-in capital**. The excess of amounts contributed by owners from the sale of shares over and above the par or stated value of the shares issued. • **Retained earnings**. Profits of the company that have not been distributed as dividends. • **Accumulated other comprehensive income items**. Specific items that are not included in the income statement but are included in equity and adjust the balance of equity, even though they do not flow to equity by means of the income statement as retained earnings do. • **Treasury stock**. The amount of shares repurchased (that is, a contra-equity account that reduces equity on the balance sheet). • **Non-controlling interest**. A portion of the equity of subsidiaries that the reporting entity owns but does not own wholly. (Formerly known as "minority interest").
127.	What are the **specific items** classified as **financing activities**?	• Issuance of stock • Treasury stock transactions • Paying dividends (note that dividends paid are a financing activity, but dividends received are an operating activity) • Issuing debt (such as bonds)

		• Obtaining a loan and repayment of principal on debt obligations, including repayment of the principal portion of capital lease payments for fixed assets (note that the interest portion of payments on capital leases and loans is classified as cash flows from operating activities)
128.	What are the **specific items** classified as **investing activities**?	• Purchasing and selling property, plant, and equipment (that is, fixed assets) • Making and collecting loans to other parties • Acquiring and disposing of available-for-sale or held-to-maturity securities (such as equities and debt instruments)
129.	What are the **specific items** classified as **operating activities**?	• **Cash received** from customers and **cash paid** to suppliers in the course of the company's primary business activity. • **Interest paid** on bonds and other debt (such as loans, leases, and mortgages). • **Interest received** and **dividends received** from debt and equity investments. • **Cash paid to the government for taxes** and **cash received back** from the government as tax refunds are generally operating activities. • Cash flows from the purchase, sale, and maturity of **trading securities usually** will be classified as operating activities, not investing activities.
130.	What are the **steps** in the **percentage of receivables method** of calculating allowance for doubtful accounts?	1. Calculate what the ending balance in the allowance account should be using some percentage of ending accounts receivable. 2. Determine what the "plug figure" in the allowance account needs to be in order for the ending balance in the account to be as calculated in Step 1. This "plug figure" is the bad debt expense for the period. **3.** Debit bad debt expense for the amount calculated as bad debt expense in Step 2 and credit the allowance for doubtful debts account for the same amount.
131.	What are the **steps** in the **percentage of sales method** of calculating allowance for doubtful accounts?	1. Calculate the bad debt expense for the period as a percentage of total credit sales. When the company makes this calculation, it ignores any previous balance in the allowance account or any previously recognized bad debt expense. The company is calculating the amount of this period's credit sales that it will not collect and that should therefore be recognized as expense for this period. 2. Debit bad debt expense for the calculated bad debt expense amount and credit the allowance for doubtful debts for the same amount. 3. Calculate the ending balance in the allowance account.

		4. Check the reasonableness of the allowance account balance. If it is not reasonable (for example, if the resulting balance is a debit balance), reappraise.
132.	What are the **three categories** of **debt securities**?	1. **Trading**: Securities bought and held principally for the purpose of selling them in the near term (generally within hours or days) with the objective of generating profits from short-term price changes. These are accounted for at fair value. 2. **Held-to-Maturity**: Debt securities that are purchased with the intent to hold them to maturity. These are accounted for at amortized cost. 3. **Available-for-Sale**: Securities not classified as either trading or held-to-maturity. These are accounted for at fair value.
133.	What are the **three classifications of inventory** for a manufacturing company?	• **Raw materials** – the individual parts and pieces that will be assembled to make the finished goods. • **Work-in-process** – units of inventory for which production has started, but has not yet been completed. • **Finished goods** – units that have been completed but not yet sold.
134.	What are the **three methods** of **accounting for investments**?	1. The **fair value** method, used for marketable debt and equity securities. The fair value method is used for debt securities and for certain equity securities. 2. The **equity method**, used generally when an investor corporation owns less than 50% of the outstanding stock of the investee but has the ability to exercise significant influence over the operations of the investee company. **3.** The **consolidation method**, used when the investor corporation owns more than 50% of the investee corporation's outstanding common stock. With greater than 50% of the outstanding common stock, the investor corporation has a controlling interest in the investee and the investee is a subsidiary of the investor. The investor consolidates the financial results of the investee with its own financial results and prepares consolidated financial statements.
135.	What are the **three types of journal entries** made that involve the **allowance account**?	1. To write off a specific receivable when it becomes uncollectible. 2. To collect a previously written-off receivable. 3. To record the bad debt expense for the period.
136.	What are the **two methods** for recognizing	• **Completed contract method**: Under the completed contract method, profit is recognized only at the completion of the contract. Any expected losses that may be incurred must be

	profit earned on a **long-term contract**?	recognized in the period when they become known. This method is prohibited under IFRS. • **Percentage-of-completion method**: Under the percentage-of-completion method, profit is recognized as it is earned throughout the process of completing the project. Like the completed contract method, any expected losses that may be incurred must be recognized in the period when they become known.
137.	What are the **two systems** for the **frequency of making inventory entries**?	1. In the periodic system, average cost is called the **weighted average** method. At the end of the period, the company determines the total number of units that it had available for sale (beginning inventory + purchased during the period) and also the total cost that it paid for all of the units available for sale. **2.** Under the **perpetual system**, the calculation of the cost of the unit of inventory sold is made after each individual sale. For LIFO and the average cost methods, the perpetual system leads to a larger number of calculations. While the calculations are not difficult, it is important to keep track of all of the necessary information for these types of questions. The effects of the perpetual method on the three main methods of tracking physical units of inventory are outlined below.
138.	What are **two important differences** between **prefer red shares** and **bonds**?	• A company not paying dividends on the preferred shares in a certain period does not constitute a default. While preferred shares have a preference in dividends over common shares, the receipt of dividends is not guaranteed for preferred shareholders. • Preferred shares do not have a face amount that needs to be repaid at a maturity date in the future the way bonds do.
139.	What are **unappropriated retained earnings**?	All retained earnings start out classified as unappropriated retained earnings. The term “unappropriated” simply means that the dividends are available to be distributed to shareholders in the form of dividends.
140.	What is a **cumulative preferred dividend**?	A cumulative dividend is one that is **earned each year** by the preferred share. This does not mean that company actually distributes the dividend each period; rather, the shareholder has earned the dividend and has a right to receive that dividend in the future. If the dividend is paid, it is accounted for just like a common cash dividend. For those years when the dividend is not paid, the amount not paid is “**in arrears**,” meaning that the company is behind schedule in the payment of preferred, cumulative dividends and has missed at least

		one payment of dividends. **Dividends in arrears must be paid in full before common dividends are paid.**
141.	What is a **deferred tax asset** and how is one created?	An item that causes taxable income in the current period to be greater than book income in the current period creates a deferred tax asset. Because taxable income is higher than book income, the company has had to pay more in taxes than its book income indicates. Therefore, for book purposes the "overpayment" is a prepaid tax, or a deferred tax asset. A deferred tax asset is created by either: • A r**evenue that is taxable in the current period** but is not included in book income for the current period. For example, a deposit received for work to be performed in the future, rental income received in advance of the period covered, or subscription payments received in advance. • Or an **expense that is included in book income** but is not deductible for tax purposes in the current period. For example, warranty expense debited to the income statement and credited to estimated warranty liabilities.
142.	What is a **deferred tax liability** and how is one created?	An item that causes taxable income in the current period to be lower than book income in the current period creates a deferred tax liability. Because taxable income is lower than book income, the company does not pay as much in taxes as its book income indicates it should pay in the current period. However, because the company knows that these temporary timing differences will reverse, it understands that the tax that was not paid this year will need to be paid in the future. Therefore, for book purposes this difference is recorded as a deferred tax liability. A deferred tax liability is created by either: • A **revenue that is included in book income** but not in taxable income in the current period. For example, interest income accrued monthly for book purposes on a debt security investment when the interest is received only semi-annually. • Or an **expense that is deductible** for tax purposes but is not an expense for book purposes in the current period. For example, payment of an insurance premium in advance for insurance coverage during the coming year or the early years of an asset's life when accelerated depreciation is used for tax purposes while straight-line depreciation is used for book purposes.

143.	What is a **property dividend**?	A property dividend refers to an asset other than cash being distributed as the dividend. For example, the company may distribute inventory, fixed assets, or shares in another company that it holds. To declare a property dividend does not mean that a company does not have cash. A property dividend may be declared because the company is using its cash to finance an expansion or some other investment opportunity. When a property dividend is declared, the company restates to fair value as of that date the property it will distribute and recognizes a gain or loss for the difference between the property's fair and carrying values.
144.	What is a **sale with buyback agreement**?	Sometimes a company may sell its product in one period and at the same time agree to buy it back in a later period. Even though legal title to the product is transferred, the seller may actually retain the risks of ownership. The terms of the agreement need to be analyzed to determine whether or not the seller has transferred the risks and rewards of ownership to the buyer.
145.	What is a **self-correcting error**?	A self-correcting error is one that will correct itself in time, even if it is not discovered. The miscounting of inventory is a self-correcting error. While the error in ending inventory will have an effect on two balance sheets and two income statements, if inventory is correctly counted at the end of the next year, then there will be no further errors as a result of the miscounting.
146.	What is a **stock dividend**?	A stock dividend occurs when the company distributes a dividend in the form of additional shares. The total value of the equity of the company is not changed by a stock dividend. The amounts in the various equity accounts are just redistributed.
147.	What is a **stock split**?	A stock split is initiated by a company as the result of the market price for a share becoming too high. In order to reduce the market price of the share, the company essentially cuts all of their shares into smaller pieces. As a result, more shares are outstanding and each share is worth a lower market price. In a stock split, the par value of each share of the stock is also reduced in the same ratio.
148.	What is a the **date of declaration** in a stock dividend?	The date of declaration is the day the board formally declares the dividend. The board also announces the date of record and the date of payment. On the date the dividend is declared, the first journal entry is made. In this entry the retained earnings account is debited, thus reducing the retained earnings balance, and a liability is set up. The amount in the journal entry is an estimated number because the exact number of shares to which the dividend will be paid is not yet known.
149.	What is an **impaired asset**?	If the **asset's book value > undiscounted future cash flows**, then the asset is considered to be **impaired**. An impaired asset is **written down**

		to its fair value. The amount by which the asset is written down is reported as a loss during that period.
150.	What is **comprehensive income**?	Comprehensive income includes all transactions of the company except for those transactions that are made with the owners of the company (such as distribution of dividends or the sale of shares). It is a little closer to being an economic measure of income than net income is.
151.	What is **contributed capital**?	Contributed capital consists of the assets that are put into the company by the owners in return for their share of ownership of the company. The fair value of what is received in exchange for the shares (whether it is cash or another asset) will be recorded in two different equity accounts.
152.	What is **fair value**?	Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Therefore, fair value is market-based. US GAAP has increasingly recommended the use of fair value to measure items in financial statements, particularly financial instruments.
153.	What is goodwill and how is it accounted for?	Goodwill is defined as the amount that a purchaser has paid for a company that is greater than the fair value of the net identifiable assets. Purchased goodwill must be reported as a **separate line item on the balance sheet**. Generally, other intangibles are combined and reported as one figure on the balance sheet. Goodwill can be acquired or developed internally, but the only goodwill recognized in the accounting records is **purchased goodwill**. The amount of goodwill purchased is equal to the difference between the **purchase price paid for a business** and the **fair value of the net assets received**.
154.	What is **historical cost**?	The historical cost of an asset is its acquisition cost. The historical cost of a liability, such as a bond payable or an account payable, is its cost when issued. A company issues a liability in exchange for an asset or a service at a price that is agreed upon and that price is the liability's historical cost. The advantage of using historical cost is that it is verifiable. However, it may not provide a good representation of an asset's or a liability's current cash value.
155.	What is factoring **with recourse**?	Factoring with recourse means that if a customer does not pay the receivable, the seller of the receivable is liable to the factor for the uncollectible amount. When a factor purchases receivables with recourse, their risk of "uncollectibility" is limited. Because of the lower level of risk to the factor, they will pay more when buying receivables with recourse.
156.	What is factoring **without recourse**?	Traditionally, factoring is without recourse, which means that the factor assumes the risk of any inability to collect the receivables. If a sold receivable proves to be uncollectible, the purchaser (that is, the

		factor) has no recourse against the seller—the loss is the factor's loss. Some companies factor their receivables to transfer the bad debt risk in this manner. However, the greater the risk of bad debt, the less cash the selling company will receive from the factor.
157.	What is **factoring**?	Factoring is selling accounts receivable to a third party. A commercial finance company, called a "factor," essentially makes a loan guaranteed (that is, collateralized) by the receivables to the seller of the receivables. The factor notifies the seller's customers that they should begin remitting their payments directly to the factor, which receives repayment of the loan as it collects the receivables.
158.	What is **preferred stock**?	Even though preferred shares do not have the right to vote, there are three preferences over common stock that make stock "preferred:" • Preference in the **claims to assets** in a liquidation • Preference in the **payment of dividends** • A difference in **how dividends are calculated**. Preferred shares usually have a higher par value than common shares, and the dividend that is paid is usually a percentage of that par (or stated) value. Therefore, the preferred dividend is more of a fixed amount than the common dividend because the common dividend is dependent on earnings and management decisions.
159.	What is solvency?	Solvency refers to the company's ability to pay its obligations when they are due. A company with a high level of long-term debt relative to its assets has lower solvency than a company with a lower level of long-term debt.
160.	What is the **date of payment** in a stock dividend?	The date of payment is the date on which the dividend is paid. On this date, the liability is eliminated and the cash account is decreased.
161.	What is **IFRS**?	IFRS stands for **"International Financial Reporting Standards,"** a widely accepted set of accounting principles used in many countries around the world. **IFRS** is primarily a **principles-based** set of accounting standards with few practical examples and limited interpretative guidance. Neither acting as a tax standard nor applying to government organizations, IFRS is intended for multiple countries with different cultural, legal, and commercial standards.
162.	What is **liquidity**?	Liquidity refers to the time expected to elapse until an asset is converted into cash or until a liability needs to be paid. The greater a company's liquidity is, the lower its risk of failure.
163.	What is **matching**?	Expenses should be recognized not when payment is made but when the work for which the payment is made contributes to revenue. That is to say, expenses should be matched with revenues.
164.	What is **off-balance sheet financing**?	Off-balance sheet financing is any form of funding that avoids placing owners' equity, liabilities or assets on a firm's balance sheet. Off-balance sheet financing can be accomplished through the use of:

		• Operating leases • Selling receivables (factoring) • Joint ventures • Non-consolidated subsidiaries • Variable interest entities
165.	What is the **formula** for **profit to recognize in the current period** under the **percentage-of-completion method**?	[Costs Incurred to Date ÷ (Total Casts Incurred to Date + Estimated Costs to Complete) × Expected Profit] - Profit Previously Recognized
166.	What is the **full disclosure principle**?	The full disclosure principle states that companies should provide information that is of sufficient importance to influence the judgment and decisions of an informed user. The full disclosure principle recognizes that the information included in financial reports reflects judgment and trade-offs. These trade-offs attempt to provide sufficient detail to disclose information that will make a difference to users while providing sufficient condensation so that the information is understandable, keeping in mind the costs of preparing the information and using the information.
167.	What three main items are classified as **cash**?	The three main items that are classified as cash and are included as cash on the balance sheet are: 1. Cash (of any currency) 2. Savings accounts 3. Checking accounts
168.	What is the **date of record** in a stock dividend?	The date of record is the date that is used to determine who actually will receive the dividend. Anyone who owns shares on the date of record receives the dividend when it is paid. Theoretically, no journal entry is made on this date because the entry on the date of declaration recognized the liability and the reduction in retained earnings. However, a company may need to make an entry on the date of record to correct the estimate that was made regarding the number of shares that will receive the dividend.
169.	What is the **equity method** for investment in **equity securities**?	The equity method is used when the investor has **significant influence** over the investee. Owning between 20% and 50% of the outstanding voting stock usually indicates significant influence. The investment is initially recorded at cost, but the investor corporation subsequently adjusts the balance in the investment account for changes in the investee's net assets. The investor's portion of the investee's earnings (or losses) periodically increases (or

		decreases) the investment's carrying amount on the balance sheet of the investor.
170.	What is the **par value** of stock?	Par value is the specified value printed on the share itself. This is the legal capital of the company that cannot be distributed as a dividend.
171.	What is the purpose of the **balance sheet**?	The balance sheet, also called a **statement of financial position**, provides information about an entity's assets, liabilities, and owners' equity **at a point in time** (usually the end of a reporting period). The balance sheet shows the entity's resource structure (that is, the major classes and amounts of assets) and its financing structure (that is, the major classes and amounts of liabilities and equity).
172.	What is **treasury stock**?	Treasury stock is shares of a company that have been sold to other parties and reacquired by the company. The company has become a holder of its own shares and may either retire these shares or hold them for sale at a later time. Treasury stock is the reacquired shares that have not yet been reissued or retired.

SECTION B – Planning, Budgeting and Forecasting (Weightage 30%)

S.No	Questions	Answers
1.	What are strategy, strategy formulation, and strategy implementation?	A **strategy** is a set of actions taken by managers of a company to increase the company's performance. The strategy-making process includes both strategy formulation and strategy implementation. Strategy **formulation** is the process of selecting strategies. Strategy **implementation** is the process of putting the selected strategies into action.
2.	What are the two theories about management's role in reaching profit growth?	1) The **market theory** gives management a passive role and views its function as making reactive decisions in response to environmental events as they occur. 2) The **planning and control theory** views the role of management as an active one that emphasizes the planning function of management and its ability to control the activities of the business.
3.	What are strategic plans and who makes strategic plans?	Strategic plans are broad, general, long-term plans (usually five years or longer) that are based on the objectives of the organization. The company's top management leads the strategic planning effort.
4.	What are intermediate plans and who makes them?	A strategic plan is broken down into **intermediate** or **tactical plans** (one to five years), which are designed to implement specific parts of the strategic plan. Upper and middle managers develop tactical plans.
5.	What are short-term plans and who makes them?	**Short-term** or **operational plans** (one week to one year) are developed from the tactical plans. Operational plans focus on implementing the tactical plans to achieve operational goals and include budgeted amounts. Middle and lower-level managers develop operational plans.
6.	What are the five steps in strategic planning?	1) Defining the company's mission, vision, values, and goals. 2) Analyzing the organization's *external* competitive environment to identify opportunities and threats. 3) Analyzing the *internal* operating environment to identify strengths, weaknesses, and limitations. 4) Formulating and selecting strategies. 5) Developing and implementing the chosen strategies.
7.	What are the four components of the mission statement?	1) A statement of the company's mission, or "**reason to be**." 2) Its **vision**, or a statement of a desired future state. 3) A statement of the organization's **values**. 4) A statement of its major **goals**.
8.	What is a goal and what are four characteristics of good goals?	A goal is a **precise** and **measurable** future state that the company wants to achieve. 1) Goals are precise and measurable. 2) Goals should be crucial and address important issues. 3) Goals should be challenging while at the same time be realistic.

		4) Goas should specify when they should be achieved in order to create a sense of urgency.
9.	What are opportunities and threats?	• **Opportunities** arise when companies can leverage external conditions to develop and implement strategies that will make them more profitable. • **Threats** include conditions in the external environment that pose a danger to profitability.
10.	According to Porter, what are the five forces that shape competition within an industry?	1) The risk of entry by potential competitors. 2) The intensity of rivalry among established companies within an industry. 3) The bargaining power of buyers. 4) The bargaining power of suppliers. **5)** The closeness of substitutes to an industry's products.
11.	What two situations must exist to have a competitive advantage?	1) Distinctive competencies and the superior efficiency, quality, innovation, and customer responsiveness that result from them. 2) The profitability that is derived from the value customers place on its products, the price that it charges for its products, and the costs of creating those products.
12.	What are the four generic distinctive competencies?	1) Superior **efficiency**. 2) Superior **quality**. 3) Superior **innovation**. 4) Superior **customer responsiveness**.
13.	What is the value that is created for customers?	A company creates **value** for customers when it produces and sells its product or performs and sells its service. The value created is the difference between the utility (U) that the customer gets from the product and the company's costs (C) to produce it. **U – C = Created Value**
14.	What is consumer surplus?	Consumer surplus is the difference between the customer's utility and the price. **U – P = Consumer Surplus**
15.	What are the three factors that determine the durability of a company's competitive advantage?	1) Barriers to imitation, or factors that make it difficult for a competitor to imitate the company's distinctive competencies, such as patents. 2) The capability of competitors to imitate the company's competitive advantage. 3) How rapidly the industry is changing.
16.	What does SWOT stand for in SWOT Analysis?	Strengths Weaknesses Opportunities Threats
17.	What are the **four generic competitive strategies**?	1. **Cost leadership**, or having a lower cost structure than all of its competitors. This can permit the cost leader to charge a lower price than the competition, thus attracting more business, and the increased sales will lead to higher profits.

		2. **Focused cost leadership**, or competing within a narrow market segment using the strategy of cost leadership. 3. **Differentiation**, which is based on achieving competitive advantage by providing a product that is different or unique in some important way. It might be **superior innovation**, **excellent quality**, or **responsiveness to customer needs**, because those are the three principal ways to achieve product differentiation. 4. **Focused differentiation**, or a business model that specializes in serving the needs of just **one or two market segments or niches**. The focused differentiator positions itself to compete with the primary differentiator in the market but in only one or two of the market's segments.
18.	What are the four basic strategies for international operations?	1) Global standardization 2) Localization 3) Transnational 4) International
19.	What are the five modes of entry for a company to enter into a foreign market?	1) Exporting 2) Licensing 3) Franchising 4) Entering into a joint venture with a host country company 5) Setting up a wholly-owned subsidiary in the host country
20.	What are horizontal and vertical integration?	• **Horizontal** integration is a corporate-level strategy that involves acquiring or merging with competitors to achieve competitive advantages such as economies of scale. • In **vertical** integration, a company expands its operations either into an industry producing inputs to the company's operations or forward into an industry that uses the company's products.
21.	What are the three decisions that a company must make about its organizational structure?	1) How to group tasks into functions, and how to group functions into business units or divisions. 2) How to allocate authority and responsibility to the functions and divisions. **3)** How to increase the coordination or integration between and among functions and divisions, and how to maintain and increase them as the structure evolves.
22.	What are the four organizational structures for international operations?	1) **Localization** is oriented toward responsiveness to the local markets. 2) **International** generally combines centralized R&D and manufacturing with decentralized marketing in each major geographic area where a company operates. 3) **Global standardization** is a low-cost strategy. 4) **Transnational** attempts to achieve both local responsiveness and cost reductions.
23.	What is PEST analysis?	PEST analysis is a type of situation analysis.

		"PEST" stands for **P**olitical, **E**conomic, **S**ocial, and **T**echnological factors that are examined in the process of doing strategic planning for an organization.
24.	What are the four categories of products in the BCG Growth-Share Matrix?	1) Stars 2) Cash cows 3) Question marks 4) Dogs
25.	What are some advantages of budgets?	• Promote **coordination** and **communication** among an organization's units and activities. • Provide a **framework for measuring performance**. • Provide **motivation** for managers and employees to achieve the company's plans. • Promote the **efficient allocation of organizational resources**. • Provide a means for **controlling operations**. • Provide a means to **check on progress** toward the organization's goals.
26.	What is a rolling, or continuous, budget?	A rolling budget is continuously being updated and always covers the same amount of time in the future.
27.	What are the three main methods of developing a budget?	1) A **participative** budget is developed from the bottom up. 2) An **authoritative** budget is developed from the top down. 3) A **consultative** budget is a combination of the authoritative and participative budget development methods.
28.	What are the steps in the budgeting process?	1) Budget guidelines are set and communicated. 2) Initial budget proposals are prepared by responsibility centers. 3) Negotiation, review, and approval. 4) Revisions 5) Reporting on variances 6) Using variance reports
29.	What is budgetary slack?	The difference between the amount budgeted and the amount the manager actually expects. It is the practice of **underestimating planned revenues** and **overestimating planned costs** to make the overall budgeted profit more achievable.
30.	What are five methods of setting standard costs?	1) Activity analysis 2) Historical data 3) Target costing 4) Strategic decisions 5) Benchmarking
31.	What are three considerations in setting direct material standards?	1) Required **quality** of materials. 2) The **quantity** needed. 3) The **price** per unit of materials.
32.	What is the master budget?	The master budget (also called the comprehensive budget) is the culmination and the goal of the budgeting process. It is a summarized set of budgeted financial statements, including the **budgeted balance sheet**, **budgeted income statement**, and **budgeted statement of cash flows**.

33.	What are operating budgets and what do they include?	Operating budgets are used to identify the resources that will be needed to carry out the planned activities during the budget period, such as sales, services, production, purchasing, marketing, and R&D. The operating budgets for individual units are compiled into the **budgeted income statement**.
34.	What are financial budgets and what is included in them?	Financial budgets identify the sources and uses of funds for the budgeted operations. Financial budgets include the cash budget, budgeted statement of cash flows, budgeted balance sheet, and the capital expenditures budget.
35.	What is the capital expenditures budget?	The capital expenditures budget is the **budget for long-term capital expenditures** such as property, plant, and equipment. Unlike the other budgets, the capital budget usually covers a period of several years and thus is often **prepared years in advance** of the budget year it affects.
36.	What is the order of the budgets being prepared in the annual budget process?	1) The sales budget 2) Production budgets 3) Ending inventory budgets 4) Cost of goods sold budget 5) Nonmanufacturing budgets 6) Cash budget
37.	What budgets are prepared from the production budget?	1) Direct materials usage budget 2) Direct materials purchases budget 3) Direct labor costs budget 4) Factory overhead budget
38.	What is a flexible budget?	A flexible budget is a budget that is prepared **after the actual level of activity is known**. • A flexible budget for a production department will be adjusted to the actual volume of units produced. • A flexible budget for an income statement will be adjusted to the actual volume of units sold.
39.	What is zero-based budgeting?	Under zero-based budgeting, the budget is prepared **without any reference to, or use of, the current period's budget or the likely operating results for the current period.** Every planned activity must be justified with a cost-benefit analysis.
40.	What are the six steps of the budget control loop?	1) **Establish** the budget or standards of performance. 2) **Measure** the actual performance. 3) **Analyze and compare** actual results with the budgeted results (this is the budget report). 4) **Investigate** unexpected variances. 5) **Devise and implement** any necessary corrective actions. 6) **Review and revise** the budget or standards if necessary.
41.	What is the formula to determine how many units need to be purchased or produced in a period?	Units needed for use in the current period + Units needed for this month's ending inventory = **Total units needed** this period − Units in this period's beginning inventory = **Units to produce or purchase** this period

42.	What two forecasting models use regression analysis?	1) Time series analysis 2) Causal forecasting
43.	What is correlation?	Correlation is the degree of the relationship between two variables.
44.	What is the coefficient of correlation and what is the range of its values?	The **coefficient of correlation (*r*)** measures the relationship between two variables. It is a range between +1 (perfect positive) and -1 (perfect negative).
45.	What is the coefficient of determination and what is its range of values?	It is the proportion of the total variation in the dependent variable (*y*) that can be explained by variations in the independent variable (*x*). The value of the coefficient of determination (r^2) range between 0 and 1.
46.	What is the t-statistic and what should its value be to indicate a significant relationship?	**The t-statistic**, or **t-value**, measures the degree to which the independent variable has a valid, long-term relationship with the dependent variable. The t-value for the independent variable used in a simple regression **should generally be greater than 2**.
47.	What is multiple regression analysis?	Multiple regression analysis is used when more than one independent variable is known to impact sales (or the variable being forecast) and each one can be expressed numerically.
48.	What are the three methods of assigning probability values?	1) Classical method 2) Relative frequency, or objective, method 3) Subjective method
49.	What do variance and standard deviation measure?	They both give a measure of the variability (or dispersion) of the values around the mean.
50.	What are the two learning curve models?	1) The cumulative average-time learning model 2) The incremental unit-time learning model **Only the cumulative average-time learning model is tested on the CMA exam.**
51.	What is the formula to calculate the **total** time to produce all units?	Time required for the first unit × $(2 \times LC)^n$ Where: LC = Learning curve percentage (in decimal format) n = Number of doublings of units produced to date
52.	What is the formula to calculate the **cumulative average** time to produce all units?	Time required for the first unit × LC^n Where: LC = Learning curve percentage (in decimal format) n = Number of doublings of all units produced
53.	What are pro-forma financial statements?	Pro forma financial statements, prepared for internal use in the planning process, are financial statements containing projected amounts that are expected if a particular course of action is followed. Pro forma financial statements are used in order to see what the financial statements of the firm will look like if something that is under consideration or forecasted actually happens.
54.	How are **direct labor standards** established?	The standard for direct labor depends on the type of work, the nature of the manufacturing process, the type of equipment that will be used, and the required skill level of the employee.

		The **quantity** standard for direct labor is determined by the industrial engineers, the production department, the labor union, the personnel department, and the management accountants, each group using some or all of the factors listed above. The **price** standard for direct labor, or the standard **wage rate**, is provided by the personnel department and is a function of the competitive labor market and any labor contracts that may exist. The standard wage rate varies according to the type of employees needed and the skill level required.
55.	How are **estimated cumulative average time per unit** and **estimated total time** calculated?	Estimated cumulative average time per unit for all units produced = Time required for the first unit × LC^n Where: LC = Learning curve percentage (in decimal format) n = Number of doublings of all units produced Estimated total time required for all units produced = Estimated cumulative average time per unit for all units produced × Total number of units produced
56.	How are **estimated total time required for production** and **estimated cumulative average time per unit** calculated?	Estimated **total time** required for all units produced = Time required for the first unit × $(2 \times LC)^n$ Where: LC = Learning curve percentage (in decimal format) n = Number of doublings of units produced to date Estimated **cumulative average time** per unit required for all units produced = Estimated **total time** required for all units produced ÷ **Total number of units** produced
57.	How are pro forma financial statements **used internally**?	• A pro forma financial statement is used to compare the company's anticipated performance with its target performance and with investor expectations. • Pro forma statements are used for "what if" analysis in order to forecast the effect of a proposed change. • They are used to determine in advance what the company's future financing needs will be. • Various cash flow projections and sets of pro forma statements may be prepared using different assumptions for different operating plans. They are used to forecast the capital requirements of the plans in order to select the plan that maximizes shareholder value.

		• Pro forma financial statements are used to determine whether the company will be able to remain in compliance with the required covenants on its long-term debt.
58.	How can **superior efficiency** be **increased**?	• Taking advantage of economies of scale and the effect that learning has on efficiency. • Using flexible manufacturing technologies. • Reducing customer loss rates. • Adopting just-in-time inventory systems. • Designing new products that are easy to manufacture. • Training employees. • Utilizing self-managing teams. • Linking pay to performance. • Making use of technology such as web-based information systems to reduce the costs of coordination between the company and its suppliers and the company and its customers. • Building a commitment to efficiency throughout the organization. • Designing facilities that will foster cooperation among the various functions in order to improve efficiency.
59.	How is **inventory** calculated for the **cost of goods sold budget**?	Beginning Inventory + Expected Budgeted Purchases or Production = Expected Goods Available for Sale − Desired Ending Inventory **= Budgeted Cost of Goods Sold**
60.	What are **controllable** and **non-controllable costs**?	**Controllable costs** refer to costs for which the manager has the authority to make the decisions about how money will be spent. **Non-controllable costs** refers to costs that are ordinarily controlled at a higher level in the organization, such as the manager's salary or bonus.
61.	What are **coordination** and **com munication**?	**Coordination** means balancing the activities of all the individual units of the company in the best way so that the company will meet its goals and the individual units of the company will meet their goals. **Communication** means imparting knowledge of those goals to all employees.
62.	What are **distinctive competencies**?	Distinctive competencies are strengths that a company has that enable it to have: • A **differentiation advantage**, meaning it is able to provide the customer with benefits that exceed those of its competitors, and/or • A **cost advantage**, meaning it is able to provide to the customer the same benefits as its competitors do, but at a

		substantially lower cost. Distinctive competencies stem from two sources: **resources** and **capabilities**.
63.	What are **efficiency** and **effectiveness** and **how are they related**?	Efficiency is the attempt to fulfill the goals and objectives of the company while using the least amount of inputs. On the other hand, effectiveness has to do with the actual accomplishment of goals. Though both efficiency and effectiveness are important, effectiveness is of ultimate importance. If a company is efficient but does not accomplish what is needed, then the efforts and resources used are wasted.
64.	What are **opportunities**?	Opportunities arise when companies can leverage external conditions to develop and implement strategies that will make them more profitable.
65.	What are **overheads**?	Overheads are indirect costs that cannot be traced to any particular unit produced. They include: • Indirect materials, such as cleaning chemicals, disposable tools, or protective devices. • Indirect labor, such as plant superintendents, plant janitors, and so forth. • Other indirect costs, such as depreciation on manufacturing equipment, utilities, and other non-traceable costs.
66.	What are **pro forma financial statements**?	Pro forma financial statements, prepared for internal use in the planning process, are financial statements containing projected amounts that are expected if a particular course of action is followed. Pro forma financial statements are used in order to see what the financial statements of the firm will look like if something that is under consideration or forecasted actually happens. Pro forma financial statements are often used to evaluate the effects on the company's finances if a particular sales forecast is realized, although they can be used for other "what if" scenarios as well.
67.	What are **resources**?	Resources are factors that enable a company to create value for its customers. They can be financial, physical, social/human, technological, or organizational factors. Resources can be **tangible** or **intangible**. • **Tangible** resources are things such as land, buildings, inventory, and cash. • **Intangible** resources are nonphysical resources like brand names, company reputation, intellectual property such as patents and trademarks, and employees' knowledge.
68.	What are **single-purpose plans**?	Single-purpose plans are developed for a specific item such as construction of a fixed asset, the development of a new product, or the implementation of a new accounting system. These are also

		incorporated into the operating and financial budgets during the relevant years.
69.	What are some of the **best practices** for budgeting?	• The development of the profit plan should be linked to corporate strategy. • The firm's management should assess the future as it pertains to the firm's strategic goals and use the budgeting process to minimize the adverse effects that anticipated problems might have on operations. • The profit plan must have the support of management at all levels. • Communication is vital. • The profit plan should be coordinated, and operating activities of diverse business units should be synchronized. • Budgeting should not be rigid. • The profit plan should be a motivating device. • Design procedures to allocate funding resources strategically. • Managers should be evaluated on performance measures other than simply meeting budget targets. • Link cost management efforts to budgeting. • The strategic use of variance analysis. • Reduce budget complexity and budget cycle time. • Develop budgets that can be revised if necessary. • Review the profit plan on a regular basis throughout the year.
70.	What are some of the **ratios** that can be used in **analysis of pro forma financial statements**?	• **Current ratio**: Total current assets / Total current liabilities • **Inventory turnover**: Annual cost of sales / Inventory • **Days sales in inventory**: 365 / Inventory turnover or Inventory / (Cost of goods sold / 365) • **Accounts receivable turnover**: Annual net credit sales / Accounts receivable • **Days sales in receivables**: 365 / Accounts receivable turnover or Accounts receivable / (Annual net credit sales / 365) • **Interest coverage ratio**: EBIT / Interest expense • **Asset turnover**: Net sales / Total assets • **Debt to equity ratio**: Total liabilities / Total equity • **Gross profit margin**: Gross profit / Net sales • **Net profit margin**: Net income / Net sales • **Return on assets**: Net income / Total assets • **Return on equity**: Net income / Total equity
71.	What are some of the **tactics managers can use** to **avoid failure**?	• Focus on **all four** generic building blocks of competitive advantage: **superior efficiency**, **quality**, **innovation**, and **responsiveness to customers**. • Practice **continuous improvement** and **continuous learning**. Things change so quickly that the only way to maintain a competitive advantage over time is to continually improve the four generic building blocks.

		• Identify and adopt best industrial practice through **benchmarking** in order to contribute to superior efficiency, quality, innovation, and responsiveness to customers. • Overcome the internal forces of inertia within the organization that create barriers to change. Once the barriers to change have been identified, good leadership and appropriate changes in organizational structure and control systems are required in order to implement the changes.
72.	What are **standard costs**?	Standard costs are the estimated manufacturing costs for direct materials, direct labor, and manufacturing overhead that are **predetermined** or **estimated** as they would occur under the conditions in the budget.
73.	What are **standing-purpose plans**?	Standing-purpose plans have relevance and use for many different items. Plans such as marketing and operation plans fall into this category.
74.	What are **strategic alliances**?	Strategic alliances are an alternative to vertical integration. They are long-term cooperative relationships between two or more companies to work together to develop a new product that will benefit all of the parties to the strategic alliance.
75.	What are **strategic control systems** and what are their **two functions**?	Strategic control systems are goal-setting, measurement, and feedback systems. They have two functions: 1. To monitor how well the firm is using its resources to build its distinctive competencies and to monitor how well it is performing. 2. To create incentives to keep its employees focused on the important problems in the organization so they will work together to resolve them.
76.	What are **tall structure** and **flat structure**?	A **tall** structure has several levels of authority between the lowest-level employees and the top of the organization. A **flat** structure has fewer levels of authority. The taller the hierarchy, the less flexible the organization's structure is and the more slowly the organization is able to respond to changes in the competitive environment.
77.	What are the **advantages** of **continu ous budgeting**?	• Budgets are no longer done just once a year. • A budget for the next full period (usually 12 months) is always in place. • The budget is more likely to be up to date, since the addition of a new quarter or month will often lead to revisions in the budget for the repeated periods. • Managers are more likely to pay attention to budgeted operations for the full budget period.

78.	What are the **advantages** of zero-based budgeting?	• In zero-based budgeting, all of the activities that a department undertakes are identified and then justified. Only revenues and costs from activities that are justified are included in the budget. Because the budget is built up from zero, each manager must justify all of the expenses in his or her department. This is preferable to the incremental approach because it enables the company to identify expenses that are not value-adding or that should be reduced due to some development in production methods or something similar. • Having to justify every activity forces a prioritizing of activities because the activities are ranked on the basis of their cost-benefit analyses in order to determine which ones are justified. This ranking provides a systematic basis for resource allocation. • Because a manager needs to examine every single expenditure and activity within the department, he or she is more likely to develop better and/or less costly methods of accomplishing the same objectives. This development of alternative methods is the chief benefit of zero-based budgeting.
79.	What are the **benefits** and **limitation s** of **activity-based budgeting**?	**Benefits** of activity-based budgeting include: • The process of preparing an activity-based budget brings out information about opportunities for cost reductions and the elimination of wasteful activities. Thus, activity-based budgeting makes it possible to identify and enhance high value-added activities and to eliminate low value-added activities. This promotes continuous improvement. • It helps managers to identify resources needed and changes that will be needed in resources if changes are made in products offered, product design, product mix, manufacturing processes, and so forth. • Budgeted costs are based on the costs for the resources required to perform the budgeted activities. This defines a clear relationship between resource consumption, costs, and output. • It helps to identify budgetary slack. **Limitations** of activity-based budgeting include: • It must be used in conjunction with activity-based costing. Activity-based budgeting is an extension of the company's activity-based costing system, and it uses the same activity cost pools for grouping costs as the activity-based costing system. In addition, activity-based budgeting and activity-

		based costing must be used together to make comparisons between actual results and budgeted results. • Both ABC and ABB require more work than a traditional costing and budgeting system and so are more costly to implement. Costs include the research needed to do the cost allocations and the time required to educate managers about the cost allocations. The more complex the cost allocations are, the higher the costs to educate.
80.	What are the **benefits** and **limitations** of **project budgeting**?	**Benefits** to project budgeting include: • Management can determine in advance whether or not the project is one that should be undertaken. • The project budget enables management to plan for the amount of resources (personnel, effort, supervisors, and finances) that will be needed. • The project budget focuses management's attention on anticipated cash inflows and outflows from the project and the decisions that will affect the cash flows. • Project budgeting fosters cooperation and coordination among the various responsibility centers that will be affected by the project. • A project budget covers an identifiable project that has its own time span. That time span may be as short as a week or it may be as long as several years. This gives the project budget more flexibility than other types of budgets. **Limitations** to project budgeting are: • Projects must be planned over their entire life spans and thus they should be viewed as special commitments. • Budgeted amounts for projects must be integrated into the master budget of the company for the relevant period or periods. Unless that is done, the project budget cannot be not fully utilized.
81.	What are the **benefits** of **learning curve analysis**?	• Development of production plans and labor requirements: Learning curves should be used in the development of production and labor budgets when changes such as new products are planned. • Management control: Recognizing that higher costs will occur in the early phase of the product life cycle allows more effective evaluation of managers. • Development of standard costs: Labor costs should be adjusted regularly in recognition of the fact that learning causes standard costs to decrease over time.

		• Life-Cycle costing: In calculating the cost of a contract, learning curve analysis can ensure that the cost estimates are accurate over the life of the contract, leading to better bidding. • Cost-Volume-Profit analysis: If learning is not considered in determining a breakeven point, the result may be an overstatement of the number of units required to break even. • Capital budgeting: Costs can be projected more accurately over the life of the capital investment when expected improvements in labor productivity due to learning are included. • Make or buy decisions: The analysis of the cost to make the product will be affected by the learning curve in effect.
82.	What are the **benefits** of **regression analysis**?	• Regression analysis is a quantitative method and as such it is objective. A given data set generates specific results. The results can be used to draw conclusions and make forecasts. • Regression analysis is an important tool for budgeting and cost accounting. In budgeting, it is virtually the only way to compute fixed and variable portions of costs that contain both fixed and variable components (**mixed** costs). The use of regression analysis for computing fixed and variable portions of mixed costs will be covered later.
83.	What are the **characteristics** of **well-constructed goals**?	1. They are **precise** and **measurable**. 2. They should be **crucial** and address **important issues**. The number of goals should be limited so managers can maintain their focus on them. 3. They should be **challenging** while at the same time being **realistic**. A goal that is too unrealistic may cause employees to either give up or embark upon unethical behavior in an attempt to meet the goal. On the other hand, a goal that is not challenging enough may not be motivating enough. 4. They **specify when they should be achieved** in order to create a sense of urgency.
84.	What are the **five steps** in the formal **strategic planning process**?	1. Defining the company's mission and addressing the key corporate goals. 2. Analyzing the organization's external competitive environment in order to identify opportunities and threats. 3. Analyzing the internal operating environment to identify strengths, weaknesses and limitations of the organization. 4. Formulating and selecting strategies that, consistent with the organization's mission and goals, will optimize the organization's strengths and correct its weaknesses and limitations for the purpose of taking advantage of external

		opportunities while countering external threats (SWOT analysis). 5. Developing and implementing the chosen strategies.
85.	What are the **four basic strategies** for **international operations**?	1. **Global standardization** focuses on the cost reductions from economies of scale and location economies. This business model pursues a low-cost strategy on a global scale. 2. **Localization** strategy works to increase profitability by offering goods or services that are customized for each different national market. Localization works when consumer tastes vary among nations and when cost pressures are not too intense. 3. **Transnational** strategy can be used when requirements for local responsiveness are high and, at the same time, cost pressures are strong. It is not easy to combine high local responsiveness with low cost structure, and few if any companies have actually been able to accomplish it. 4. **International** strategy is used by companies that do not have great pressure to produce low-cost goods and do not have great pressure to be locally responsive. This would be the case if the company is selling a product that serves universal needs and if the company does not face significant competition.
86.	What are the **four categories** in the **BCG Matrix**?	• A **star** is in an industry that has a high market growth rate, and the product has a high share of the market. A star generates a lot of cash because it has a high share of its market. However, because the market is growing rapidly, the star's sales are also growing rapidly. • A **question mark** is a product in an industry with a high market growth rate, but the product has a low share of the market. Because the market is growing rapidly, the question mark's sales are also growing rapidly, so it will consume a lot of cash for investment. • A **cash cow** is in an industry with a low market growth rate, but the product has a high share of the market. Cash cows are in mature markets in which the growth rate has slowed, but they are market leaders. Cash cows generate more cash than they consume. • A **dog** is in a mature industry with a low market growth rate, and it has a low share of the market. A dog does not consume much cash, but it does not generate much cash, either.
87.	What are the **four choices** for determining **budgeted output or activity level**?	1. **Theoretical or ideal capacity** is the level of activity that will occur if the company produces at its absolute most efficient level at all times.

		2. **Practical (or currently attainable) capacity** is the theoretical level reduced by allowances for idle time and downtime, but not reduced for any expected decrease in sales demand. 3. **Master budget capacity**, also called **expected actual capacity**, is the amount of output actually expected during the next budget period based on expected demand. 4. **Normal capacity utilization** is the level of activity that will be achieved in the long run, taking into account seasonal changes in the business and cyclical changes. U.S. GAAP, in ASC 330, specifically prescribes that normal capacity should be used for external financial reporting.
88.	What are the **four components** of a company's **mission statement**?	1. A statement of the company's "**reason to be.**" 2. Its **vision**, or a statement of a desired future stat. 3. A statement of the organization's **values**. **4.** A statement of its major **goals**.
89.	What are the **four steps** in forecasting using the Forecasted Financial Statement Method?	1. Analyze historical ratios that will be used for the projections. 2. Forecast the income statement. 3. Forecast the balance sheet. **4.** Construct a pro forma statement of cash flows.
90.	What are the **general classifications of strategies** under **SWOT analysis**?	• **Functional-level strategy**, for the purpose of improving operations inside the company. These operations include areas such as manufacturing, marketing, materials management, product development, and customer service. • **Business-level strategy**, which includes the position of the business in the marketplace as well as different positioning strategies that could be used. Some examples are (1) cost leadership, (2) differentiation, (3) focusing on a particular marketing niche or segment, or (4) a combination of more than one of these. • **Global strategy**, or considering how to expand operations outside the home country. • **Corporate-level strategy**, considering what business or businesses the company should be in so as to maximize its long-run profitability and profit growth.
91.	What are the **limitations** of flexible budgeting?	The limitations of flexible budgeting include: • If sales decline below the planned level, the decline does need to be addressed and a flexible budget will not be useful for pinpointing a decline in sales below what was planned.

		• Flexible budgeting needs to be used with a standard costing system. The two go together, and one is meaningless without the other.
92.	What are the **limitations** of **learning curve analysis**?	• Learning curve analysis is **appropriate only for labor-intensive operations involving repetitive tasks** where repeated trials improve performance. If the production process primarily relies on robotics and computer controls, little repetitive labor is involved and thus little opportunity exists for learning to take place. • The **learning rate is assumed to be constant**. In real life, the decline in labor time might not be constant. For example, the time required might decline at the rate of 70% for the first 75,000 units, followed by 80% for the next 50,000 units, and 95% for the next 25,000 units. • The reliability of a learning curve calculation can be jeopardized because **an observed change in productivity might actually be associated with factors other than learning**, such as a change in the labor mix, the product mix, or other factors. If some factor or factors other than learning are affecting productivity, a learning model developed using the affected historical data will produce inaccurate estimates of labor time and cost.
93.	What are the **limitations** of **regression analysis**?	• To use regression analysis, historical data is required for the variable that is being forecast or for the variables that are causal to this variable. If historical data is not available, regression analysis cannot be used. • Even when historical data is available, its use is questionable for predicting the future if a significant change has taken place in the conditions surrounding that data. • In causal forecasting, the usefulness of the data generated by regression analysis depends upon the choice of independent variable(s). If the choice of independent variable(s) is inappropriate, the results can be misleading. • The statistical relationships that can be developed using regression analysis are valid only for the range of data in the sample.
94.	What are the main steps in the **budget development process**?	1. Budget guidelines are set and communicated. 2. Initial budget proposals are prepared by responsibility centers. 3. Negotiation, review, and approval. 4. Revisions. 5. Reporting on variances. 6. Use of the variance reports.

95.	What are the **methods** that can be used to establish **usage and cost standards**?	• **Activity analysis** involves identifying and evaluating all the input factors and activities that are required to complete a job, a project, or an operation efficiently. Activity analysis is the **most accurate way of determining standard costs** if it is properly executed. • **Historical data** uses data from the manufacture of a similar product in prior periods to determine standard costs, assuming accurate data is available. • **Target costing** is used when a firm has a specific selling price at which it desires to sell its product in order to be competitive. The target cost is **the cost that yields the required profit margin for the product**, given a set selling price. • **Strategic decisions** can affect a product's standard cost, such as setting challenging goals that will lead to continuous improvement. • **Benchmarking** uses industry information about current practices of other firms or current practices of the best-performing divisions within the same company.
96.	What are the **modes of entry** for international operations?	• **Exporting**. • **Licensing** with a foreign licensee who buys the right to produce the product and pays a royalty in return. • **Franchising** is similar to licensing, but it involves longer-term commitments. • A **Joint venture** established with a foreign company in the host country. • A **wholly owned subsidiary**.
97.	What are the **most important macroeconomic factors** in planning and budgeting?	• **Economic growth** leads to more consumer spending and gives companies the opportunity to expand their operations and increase their profits. **Economic recession** leads to a reduction in consumer spending and, in a mature industry, may cause price wars. • The **level of interest rates** can affect a company's sales and net income if the company is in an industry where demand is affected by interest rates, such as the housing market or the manufacture of capital goods. • **Changes in currency exchange rates** affect the competitiveness of companies in international trade. • Both **inflation** and **deflation** cause businesses to be less willing to make investments in new projects. When inflation increases, it is difficult to plan on what the real return will be from an investment. Deflation also causes a lack of stability in the economy, because when prices are deflating, companies with a high level of debt and the obligation to make regular

		fixed payments on the debt can find themselves unable to service that debt.
98.	What are the **steps** in calculating the **predetermined overhead allocation rate**?	1. The company budgets its costs for fixed or variable overhead for the coming year. 2. The company decides how much output it will produce during the coming year and, as a function of that output, how many machine hours or how many direct labor hours it plans to use during the year. 3. The budgeted dollar amount of fixed or variable overhead is divided by the planned activity level (number of hours) to determine the amount of overhead to allocate to each hour allowed for production of each unit. **4.** Alternatively, the budgeted dollar amount of fixed or variable overhead can be divided by the number of units budgeted to determine the amount of overhead to allocate to each unit produced.
99.	What are the three kinds of **integrating mechanisms**?	Integrating mechanisms are methods of increasing communication and coordination among functions and divisions. There are three basic kinds of integrating mechanisms: 1. **Direct contact** among managers. Managers of various functions work together to solve problems. However, functional managers usually have equal authority, and if they disagree on something, there is no means to resolve the conflict other than going to the boss. 2. **Liaison roles**. One manager in each function or division has responsibility for coordinating with the other. This liaison is part of the manager's job description, and the managers meet on a regular basis to resolve issues. This eases strains among functions and provides a means of communicating information across an organization. 3. **Teams**. One manager from each function or division is a member of a team that meets to solve a specific problem. The team members report back to their units on the issues discussed and the recommended solutions.
100.	What are the **three main values** that are **characteristic of successful organizations**?	1. Successful companies have **values that promote action**. They emphasize **autonomy** for their employees as well as for their managers. Autonomy is the freedom to make one's own decisions and to take action. 2. The company's **business model is focused on its mission**. The company sticks with what it is there to do and does not pursue opportunities outside its area of expertise regardless of how attractive they might seem.

		3. The **organizational design motivates employees to do their best**. Management believes that productivity is achieved through people and that respect for its people is the primary means that it can use to promote their productive behavior.
101.	What are the **three methods** of **developing the budget**?	A **participative** budget is developed from the bottom up. All the people affected by the budget are involved in the budget development process, even lower-level employees. This type of budget development involves negotiation between lower-level managers and senior managers. An **authoritative** budget is developed from the top down. Senior management prepares all the budgets for every segment of the organization. The budgets are imposed upon the lower-level managers and employees. A **consultative** budget is a combination of authoritative and participative budget development methods. Senior management asks for input from lower-level managers but then develops the budget with no joint decision-making or negotiation involved.
102.	What are the **three methods** used to assign **probable values** to **possible outcomes**?	1. **Classical Method**: This method assumes that each possible outcome has an equal probability of occurring. This is the method used to assign probabilities to coin tosses or dice rolls. Business decisions don't usually involve coin tosses or dice rolls, so the classical method is seldom used in situations of business uncertainty. 2. **Relative Frequency or Objective Method**: When factual information is available that can be used to determine the probability of something occurring, the use of that information to assign probabilities is called the relative frequency method. The information may come from a sample, analytical data, or any other reliable source. 3. **Subjective Method**: This method is used when neither the classical nor the relative frequency methods can be used because the possible outcomes are not equally likely and relative frequency data is not available. With the subjective method of assigning probabilities, we use whatever data is available and add to that data our own experience and intuition. Subjective probability is personally determined, and different people will assign different probabilities to the same event.
103.	What are the **three primary approaches** to **forecasting**?	1. **Experience**: Because sales, expenses, or earnings have grown at a particular rate in the past, we assume they will continue growing at that rate in the future. This leads to trend projections.

		2. **Probability**: We assume something will happen in the future because the laws of probability indicate it will. For example, probability is used to forecast the expected value of future cash flows from a proposed capital budgeting project. 3. **Correlation**: Because there has been a high correlation in the past between one factor and another factor, such as increased advertising leading to increased sales, we use what we know about the first factor to forecast the second factor.
104.	What are the **two basic forecasting methods**?	1. **Time series methods**, which look only at the historical pattern of one variable and generate a forecast by extrapolating the pattern using one or more of the **components** (or **patterns**) of the time series, and **2. Causal forecasting methods**, which look for a cause-and-effect relationship between the variable we are trying to forecast (the **dependent variable**) and one or more other variables (the **independent variables**).
105.	What are the **two basic requirements** of probability?	1. The probability values assigned to **each** of the possible outcomes must be between 0 and 1; **and** 2. The probable values assigned to **all** of the possible outcomes must total 1.
106.	What are the **two opposing philosophies** with respect to the **role of management** in **reaching profit growth**?	1. The **market theory** gives management a passive role and views its function basically as making reactive decisions in response to environmental events as they occur. 2. The **planning and control theory** views the role of management as an active one that emphasizes the planning function of management and its ability to control the activities of the business.
107.	What are the **two requirements** for a company to have a **competitive advantage**?	1. Distinctive competencies and the superior efficiency, quality, innovation and customer responsiveness that result from them. 2. The profitability that is derived from the value customers place on its products, the price that it charges for its products, and the costs of creating those products.
108.	What are the **upper** and **lower limits** for **learning curve percentages**?	• The learning curve will always be **less than** 100%, because if the learning curve is 100% then no learning and no decrease in time required is taking place. This upper limit applies to both the cumulative average-time learning model and the incremental unit-time learning model because both assume that the time required to perform a task decreases as the task is performed multiple times. • When the cumulative average-time learning model is being used, the learning curve percentage must be **greater**

		than 50%. (The additional units must require some added amount of time, so the total time for the additional units plus the time for the initial units must be greater than the time required for the initial units.) No similar restriction exists for the incremental unit-time learning model because that model results only in an estimate of the time needed to produce just the last unit in a quantity of units.
109.	What are **threats**?	Threats include conditions in the external environment that pose a danger to profitability.
110.	What are **trend projection** and **regression analysis**?	A time series that has a long-term upward or downward trend can be forecasted by means of **trend projection**. A trend projection is done with **simple regression analysis**, which forecasts values using historical information from all available past observations of the value. Simple linear regression analysis relies on two assumptions: • Variations in the dependent variable (i.e., what we are forecasting) are **explained by variations in one single independent variable** (i.e., the passage of time, if a time series is what we are forecasting). • The relationship between the independent variable (time or a specific value) and the dependent variable (sales or whatever we are forecasting based on the value of the independent variable) is **linear**. A linear relationship is one in which the relationship between the independent variable and the dependent variable can be approximated by a straight line on a graph. The regression equation, which approximates the relationship, will graph as a straight line.
111.	What are **values** and what is **organizational culture**?	A company's **values** define how managers and employees should behave and do business. A company's values are the foundation of its **organizational culture**. The organizational culture consists of the values, norms and standards that govern how the company's employees work to achieve the company's mission and goals.
112.	What are **variance** and **standard deviation**?	The variance and standard deviation both give an idea of the **variability** of the possible values about the mean. The variance and the standard deviation measure how far from the mean (the expected value) the various possible values lie. The **variance** of a population is represented by $\boldsymbol{\sigma^2}$ (sigma squared). The variance is the sum of the squares of all the differences or deviations from the mean (average), weighted according to their probabilities. The difference from the mean of each result is important because it indicates the distance that particular measurement is from its **expected value**.

		The **standard deviation** is the positive square root of the variance. It is represented by **σ** (sigma). Whereas variance is measured in squared units, standard deviation is measured in the same units as the variable.
113.	What **decisions** must be made when a company **defines its business**?	• Decisions about customers' needs and what needs are to be satisfied. • Decisions about what products should be offered and to which customer groups. • Decisions about how customer needs are to be satisfied, using the company's distinctive competencies.
114.	What **factors** should be considered for investigating **variances** in the **flexible budget**?	• **The magnitude of the variance**. What constitutes a material variance will vary depending on the size of the budget line item. If the budgeted amount is $1,250, a $1,000 variance would represent 80% of the budgeted amount and would be important to investigate. But if the budgeted amount is $1,000,000, a $1,000 variance would be only 0.10% of the budgeted amount and would not be material. • **The trend of the variance over time**. If an unfavorable variance has been ongoing for several months and is getting larger, then it needs to be investigated, even if its magnitude is not large. • **The likelihood that an investigation will eliminate future occurrences of the variance**. This is a cost-benefit determination. If an investigation would not result in any changes that could eliminate future occurrences of the variance, then the benefit to be gained from investigating the variance would not be worth the cost of the investigation.
115.	What **four budgets** depend directly on the **production budget**?	1. **Direct materials usage budget**. 2. **Direct materials purchases budget**, which is created in much the same way as the production budget, taking into account the desired change in inventory of raw materials. 3. **Direct labor costs budget**. **4. Factory overhead budget**, including both variable costs (such as utilities) and fixed costs (such as supervisory salaries). Fixed factory overhead costs that fall within the relevant range do not change as production levels change, but if the budgeted production is outside the relevant range, appropriate adjustments need to be made to fixed manufacturing costs.
116.	What **four factors** create **competitive advantage**?	• Superior **efficiency**. • Superior **quality**. • Superior **innovation**.

		• Superior **customer responsiveness**.
117.	What is a **deviation** in linear regression?	On a graph, the difference between each point and its corresponding point on the regression line is called a deviation. When the position of the regression line is calculated mathematically, the line will be in the position where the deviations between each graphed value and the regression line have been minimized.
118.	What is a **goal** and what is the purpose of **goal-setting**?	A **goal** is a precise and measurable future state that the company wants to achieve. The purpose of **goal-setting** is to specify what needs to be done in order to attain the company's mission and vision. Well-constructed goals provide a means for managers' performance to be evaluated.
119.	What is a **life-cycle budget**?	A life-cycle budget plans incomes and expenses for one specific product throughout its entire life cycle, from its development through its decline. This enables a company to see the cash flows that will result from the product over its entire life. When all the lifetime development and production costs are set forth in the life-cycle budget, management can set a price that will cover not only the company's costs but also its required return on investment.
120.	What is a **profit plan**?	A profit plan is generally prepared for a set period of time, commonly for one year, and the annual profit plan is subdivided into months or possibly quarters. Usually the profit plan is developed for the same time period covered by a company's fiscal year.
121.	What is a **project budget**?	As the name suggests, a project budget is a budget for a specific project. As such, the time frame of the budget may be very short or more long-term, depending upon the length of the project. Project budgets are fundamentally different from the master budget and the flexible budget. The master budget or the flexible budget covers a distinct time span, such as the month of January. In contrast, a project budget covers an identifiable project that has its own time span. That time span may be as little as a week or it may be as long as several years. The focus in project budgeting is on one separate project.
122.	What is a **standard cost**?	A standard cost is the cost of producing one unit of output. It is the sum of the products of each standard input multiplied by its standard price.
123.	What is a **standard input**?	A standard input is the quantity of the input (such as kilograms or the number of units of direct material or hours of direct labor) required to produce one unit of output.
124.	What is a **standard price**?	A standard price is the price the company expects to pay for one unit of an input.
125.	What is a **strategy**?	A strategy is a set of actions taken by managers of a company to increase the company's performance. The strategy-making process includes both strategy formulation and strategy implementation.
126.	What is **activity-based budgeting**?	Activity-based budgets are prepared based on the budgeted overhead costs to perform the budgeted activities. Activities that drive the costs

		are identified and a budgeted level of activity for each of the drivers is determined based on a budgeted level of production. A budgeted cost pool (budgeted overhead costs) is developed for each activity. Budgeted overhead costs per unit of each activity are determined by dividing the total budgeted overhead costs for the activity by the total budgeted units of the activity. Overhead costs are allocated to products on the basis of the budgeted levels of each activity for each product. The company may have several different overhead cost pools, each with a different cost driver and a different cost allocation to the units produced. Thus several different overhead allocations may be made to each product.
127.	What is an **industry analysis**?	An industry analysis involves assessing the company's industry as a whole, the company's competitive position within the industry, and the competitive positions of its major rivals. The nature of the industry, the stage the industry is in, the dynamics and the history are all part of this analysis.
128.	What is **capacity** and what are **capital resources**?	**Capacity** is the ability of the company to produce its products or services. **Capital resources** are the company's fixed assets. In the long term, the company will need to make certain that its capacity will be able to meet the expected demand and also decide how to obtain this capacity.
129.	What is **centralization of authority**?	Centralization of authority means that upper management retains authority to make the important decisions. When decisions are centralized, management can be sure that they will fit the organization's broad objectives.
130.	What is **contingency planning**?	Contingency planning is planning that a company develops to prepare for possible future events (especially negative events). This is "what if?" planning. Preparing different plans for different situations is more expensive because it entails developing multiple plans. However, multiple plans for different situations enable the company to be better prepared for what may occur. Companies do this when they think that the contingency planning will eventually lead to greater savings than the cost of the planning itself.
131.	What is correlation analysis?	Correlation analysis determines the **strength of the linear relationship between the x values and their related y values**. The results of the correlation analysis tell the forecaster whether the relationship between the dependent variable (sales, for example) and the independent variable (the passage of time, for a time series) is reasonable.
132.	What is **decentralization of authority**?	Decentralization of authority means that decision-making authority has been delegated to divisions, functions, and employees further on down the hierarchy in the company. Delegation of day-to-day decisions to middle and lower-level managers gives top management more time to spend on strategic decisions.
133.	What is diversification?	Diversification is entering one or more new industries to take advantage of the company's distinctive competencies and business model.

134.	What is **expected value**?	The expected value of an action is found by multiplying the probability of each potential outcome by its payoff. Therefore, expected value, or expected return, is a **weighted average** of the possible returns, with the weights being the probabilities of occurrence. A weighted average can be calculated only for **discrete** probability distributions. It is not possible to calculate a weighted average for a continuous probability distribution because the number of possible variables is infinite.
135.	What is **fixed manufacturing overhead**?	Fixed manufacturing overhead is indirect manufacturing costs that do not vary in response to changes in activity as long as the activity remains within the relevant range. The types of overhead that go into the calculation of budgeted total fixed overhead are salaries for plant supervisors and depreciation on equipment, to mention just two examples.
136.	What is **goal congruence**?	Goal congruence is defined as "aligning the goals of two or more groups." As used in planning and budgeting, it refers to the aligning of goals of the individual managers with the goals of the organization as a whole.
137.	What is horizontal integration?	Horizontal integration is a corporate-level strategy that involves acquiring or merging with competitors to achieve competitive advantages such as economies of scale.
138.	What is included in the financial budget?	The financial budget includes: • Capital expenditures budget • Cash budget • Budgeted balance sheet • Budgeted statement of cash flows
139.	What is included in the **nonmanufacturing budgets**?	Amounts for nonmanufacturing costs come from the various areas of the company that are not involved in production. Those budgets include: • Research and development (R&D) budget. • Selling, marketing and distribution budget, including sales supervisory salaries, sales commissions, selling expenses (such as travel and entertainment), advertising and promotion expenses, shipping-out expenses, telephone and wireless, office supplies, depreciation on office furniture and equipment used by sales and marketing personnel, and so forth. • Administrative and general expense budget, including salaries and wages for management and support staff in administrative and staff departments (i.e., accounting, legal, IT, human resources), travel and entertainment, insurance, audit fees, telephone and wireless, office supplies,

		depreciation on office furniture and equipment used by administrative personnel, and so forth. • Budgets for other expenses or sources of revenue such as interest income and interest expense.
140.	What is included in the operating budget?	The operating budget includes the income statement and all the budgets that support it, including: • Sales budget • Production budget • Direct materials usage budget • Direct materials purchases budget • Direct labor budget • Manufacturing overhead costs budget • Ending inventories budget (finished goods and direct materials) • Cost of goods sold budget • Nonmanufacturing budget
141.	What is meant by a company's **vision**?	A company's **vision** is what the company would like to achieve, and it should be challenging. A good vision statement should challenge the company by stating an ambitious future state that will (1) motivate employees at all levels and (2) drive the strategies that the company's management will formulate and implement in order to achieve the vision.
142.	What is meant by **durability** of competitive advantage?	The durability of competitive advantage is how long any competitive advantage that a company has will last.
143.	What is meant by the term **learning curve**?	The term "learning curve" refers to the idea that efficiency increases the more experience a person has with a given task. As a result, the time required for performing the task decreases as increases occur in the number of times the task has been performed.
144.	What is **multiple regression analysis**?	Multiple regression analysis is used when more than one independent variable is known to impact a dependent variable to forecast the dependent variable. Multiple regression analysis is another type of causal forecasting.
145.	What is **organizational design**?	Organizational design involves determining how a company should create, combine and use three elements to pursue its business model successfully. These three elements of organizational design are the company's **organizational structure**, **control systems** and **culture**.
146.	What is **PEST analysis**?	PEST analysis is another type of situation analysis. "PEST" stands for **P**olitical, **E**conomic, **S**ocial, and **T**echnological factors that are examined in the process of doing strategic planning for an organization.
147.	What is **planning**?	Planning in general refers to the process that provides guidance and direction regarding what an organization needs to do throughout its operations. It determines the answers to the "who, what, when,

		where and how" questions of a business operation. Planning is the first activity that management must undertake when creating yearly budgets and making other critical decisions that will affect the future. A company's plan serves as its guide or compass for the activities and decisions made by individuals throughout the entire organization. The planning process not only defines the company's objectives and goals, it sets the stage for prioritizing how to develop, communicate and carry out accomplishing them.
148.	What is **situation analysis**?	Situation analysis is the systematic collection and evaluation of external and internal forces that can affect the organization's performance and choice of strategies and assessing the organization's current and future strengths, weaknesses, opportunities, and threats.
149.	What is **strategic planning**?	Strategic planning is neither detailed nor focused on specific financial targets, but instead looks at the **strategies, objectives and goals of the company** by examining both the **internal and external factors** affecting the company. Strategic planning is **directional**, rather than **operational**. This means that the company focuses on where it wants to go instead of specifically how it will get there. Internal factors include current facilities, current products and market share, corporate goals and objectives, long-term targets, technology investment, and anything else within the direct control of the company itself. Some of the external factors are the economy, labor market, domestic and international competition, environmental issues, technological developments, developing new markets, and political risk in other countries (or the home country).
150.	What is the **BCG Growth-Share Matrix**?	The BCG Growth-Share Matrix is a method of analyzing a company's portfolio of products to determine where each product is in its life cycle. It was developed by the Boston Consulting Group in the 1970s to assist corporations in analyzing the life cycles of their product lines in order to make better decisions about allocation of resources in planning.
151.	What is the **budget** or **profit planning manual**?	The budget or profit-planning manual details the budgeting process. It is written and maintained by the department in charge of coordinating the development of the profit plan and it is their guidebook for the whole budget development process. It outlines what needs to be done and when.
152.	What is the **budgeting cycle**?	The budgeting cycle is a process that goes on throughout the year, even though the budget is probably completed before the year begins. The budgeting cycle consists of more than just the development of the annual profit plan, although that is a big part of the cycle. Throughout the budget year, actual results need to be compared with planned results and variances investigated. Without

		this comparison and investigation, the budgeting cycle loses much of its usefulness to the company.
153.	What is the **capital expenditures budget**?	**The capital expenditures budget is not a part of the annual budget development process**, but it is very important to the development of the annual budget. The capital expenditures budget is the budget for long-term capital expenditures such as property, plant, and equipment. Any capital expenditures to be made during the budget year will need to be included in the budgeting process for the year. Unlike the other budgets, the capital budget usually covers a period of several years and thus is often prepared years in advance of the budget year it affects.
154.	What is the **cash budget**?	The cash budget (also called the cash management, cash flow or working capital budget) draws upon information from all other budgets. Because it uses information from the other budgets, it is the **last budget prepared**. It is also one of the most important budgets developed. The cash budget tracks the inflows and outflows of cash on a month-by-month (possibly even week-by-week or day-by-day) basis. The cash budget is similar to but not exactly the same as a budgeted statement of cash flows. The cash budget must be prepared **before** the planned balance sheet can be prepared. On the other hand, the budgeted statement of cash flows is prepared **after** the planned balance sheet and income statement are prepared. The cash flows in the budgeted statement of cash flows are segregated according to operating, investing, and financing cash flows and the cash flows are presented as net amounts. In contrast, the cash flows in the cash budget are segregated according to receipts and disbursements.
155.	What is the coefficient of correlation?	The coefficient of correlation measures the relationship between two variables. The coefficient of correlation is a number that expresses how closely connected, or correlated, the two variables are and the extent to which a change in one variable has historically resulted in a change in the other. Mathematically, the coefficient of correlation, represented by r (or R), is a numerical measure that expresses both the direction (positive or negative) and the strength of the linear association between the two variables. In linear regression analysis using only one variable (such as sales), the period of time serves as the independent variable (x-axis) while the sales level serves as the dependent variable (y-axis).
156.	What is the **coefficient of determination**?	In a simple linear regression with only one independent variable, the coefficient of determination is the **square of the coefficient of**

		correlation. The coefficient of determination is represented by the term r^2 (or R^2) and it is the percentage of the total amount of change in the dependent variable (y) that can be explained by changes in the independent variable (x).
157.	What is the **cumulative average-time learning model**?	The cumulative average-time learning model assumes a constant rate of decline in the estimated average time per unit each time the quantity of units produced doubles. This model can be used to calculate three things: 1. The estimated **average time per unit** for the entire quantity produced, from the very first unit to the very last unit produced. This is the "cumulative average." 2. The estimated **total time** required for the entire quantity produced, from the very first unit to the very last unit produced. 3. The estimated **total production time required for a certain block of units** can be calculated by finding the total time required for all the units produced through the end of that block and subtracting from that the total time required for the units up to that block. This calculation is possible only if the block of units represents the units that are produced in a doubling of production.
158.	What is the **equation** of a **linear regression line**?	The equation of a linear regression line is: **$\hat{y} = ax + b$** Where: $\hat{y}$ = the **predicted** value of y on the regression line corresponding to each value of x a = the slope of the line b = the y-intercept, or the value of y when x is zero (0) x = the value of x on the x-axis that corresponds to the value of y on the regression line
159.	What is the **Forecasted Financial Statement Method** of forecasting?	The Forecasted Financial Statement approach to forecasting future financing needs involves preparation of a complete set of pro forma financial statements, including income statement, balance sheet, and statement of cash flows. We begin with a forecast of sales and we forecast the assets (such as accounts receivable, inventory, and fixed assets) that will be needed to support those sales, the spontaneous liabilities (such as accounts payable and accruals) that will arise, and the increase in retained earnings from profits. All of the sources of financing are forecasted, including existing debt and equity. The forecasted increase in retained earnings is developed from the projected income statement and dividend payments. The difference between total assets and total liabilities plus equity is the "additional funds needed," which is a "plugged" figure on the balance sheet.

		The FFS method produces a forecast of the entire balance sheet and income statement. The pro forma balance sheet and income statement can then be used to create the pro forma statement of cash flows.
160.	What is the **major limitation** of zero-based budgeting?	The disadvantage and major limitation of zero-based budgeting is that it can require a nearly impossible amount of work to review all of a company's activities every year. As an alternative, a company could schedule zero-based budgeting on a rotating basis, with only a few different departments or divisions being subject to an in-depth review of their activities each year.
161.	What is the master budget?	The master budget is the culmination and the goal of the budgeting process. The master budget is also called the **comprehensive budget**. The master budget is a summarized set of budgeted financial statements, including the **budgeted balance sheet**, **budgeted income statement**, and **budgeted statement of cash flows**.
162.	What is the **primary advantage** of flexible budgeting?	The primary advantage of flexible budgeting is that it enables management to focus its attention on variances caused by factors other than differences between actual and budgeted volumes.
163.	What is the **production budget**?	After determining the sales budget, the production budget is developed so that it incorporates the company's sales budget along with its capacity and inventory objectives. The production budget will of course need to include production from any new capital projects planned to begin production during the year. The production budget also includes **when** the units will be produced.
164.	What is the purpose of **internal analysis**?	The purpose of internal analysis is to identify **strengths**, **weaknesses** and **limitations** within the organization. The company's resources and capabilities need to be assessed. Strengths lead to superior performance in the areas of **efficiency**, **quality**, **innovation**, and **responsiveness to customers**. Weaknesses and limitations lead to inferior performance.
165.	What is the **sales budget**?	The sales budget shows the expected sales in units of each product and each product's expected selling price. The sales budget is based upon the firm's forecasted sales level, its short- and long-term objectives, and its production capacity. The first operating budget to be prepared is always the sales budget, because the production budget and all the other budgets for the company are derived from the sales budget.
166.	What is the **t-statistic**?	The t-statistic, or t-value, measures the degree to which the independent variable has a valid, long-term relationship with the dependent variable. The t-value for the independent variable used in a simple regression should generally be greater than 2. A value below 2 indicates little or no relationship between the independent variable and the dependent variable, and thus the forecast resulting from the regression analysis should not be used.

167.	What is **time series analysis**?	Time series data reflects historical activity for **one variable** over a sequence of past time periods. A time series method of forecasting **uses only these historical values** in an attempt to find a pattern that can be used in forecasting the future. Only one set of historical time series data is used in time series analysis and this historical data is not compared to any other set of data. Time series analysis looks at patterns of the desired variable over time. The most frequent pattern and the one most amenable to using for forecasting is a trend pattern, in which the historical data exhibits a gradual shifting to a higher or lower level.
168.	What is **tunnel vision**?	Tunnel vision occurs when employees become so concerned with their own goals that they fail to notice or care about the larger goals of the company. If in doing your job you prevent others from doing their jobs, the company not only does not benefit, it can actually be hurt. Managers need to be certain they do not lose sight of the company's goals.
169.	What is **variable manufacturing overhead**?	Variable manufacturing overhead is overhead that varies in total with the number of units produced, but its cost per unit remains constant. It includes costs such as supplies used in manufacturing (the more units are manufactured, the more supplies are required) or the electricity required to operate the equipment.
170.	What is **vertical integration**?	In vertical integration, a company expands its operations either into an industry producing inputs to the company's operations or forward into an industry that uses the company's products.
171.	What is zero-based budgeting?	Under zero-based budgeting, the budget is prepared without any reference to, or use of, the current period's budget or the likely operating results for the current period. Every planned activity must be justified with a cost-benefit analysis.
172.	What **three considerations** go into establishing a **standard cost for direct materials**?	1. Required **quality** of materials. 2. The **quantity** needed. 3. The **price** per unit of materials.
173.	What **three factors** affect the **durability** of a company's **competitive advantage**?	1. **Barriers to imitation**, or factors that make it difficult for a competitor to imitate the company's distinctive competencies, such as patents. 2. The capability of competitors to imitate the company's competitive advantage, based upon their **prior strategic commitments** and their **absorptive capacity**. 3. The **dynamism** of the industry environment, or how rapidly the industry is changing. When an industry is changing rapidly, a company with competitive advantage may quickly find its market position overtaken by a competitor with a new innovation.
174.	When a company's **sales increase**, what are	1. When inventory increases, accounts payable will increase because more inventory is being purchased and/or

	the **three ways** to **fund the expected increase in assets**?	manufactured. Accrued liabilities (such as accrued salaries and wages and accrued taxes) will also increase because of the increased activity. This increase in liabilities, called a **spontaneous liability increase**, will fund a portion of the increase in assets. These increases in liabilities are called spontaneous liability increases because they occur naturally. 2. Profits from additional sales will provide some of the funding. Any profits not paid out in dividends increase retained earnings. The additional retained earnings increase equity and provide a source of funds. **3.** The remainder of the funding beyond what can be supplied by items 1 and 2 will need to be provided through external financing such as bank loans (short-term and/or long-term) or issuance of securities (stock or bonds).

SECTION C – Performance Management (Weightage 20%)

S.No	Questions	Answers
1.	What is a standard cost and why is it important?	A standard cost is an estimate of the cost the company expects to incur in the production process. Standard costs are required in order to evaluate how a company performed during a period because performance is measured against the standard cost.
2.	What are the Level 1 variances?	Static budget variances. These are based on the income statement and compare the actual result to the master budget.
3.	What are the Level 2 variances?	1) The flexible budget variance: **Actual Results – Flexible Budget Amount** 2) The sales volume variance: **Flexible Budget Amount – Static Budget Amount**
4.	How is the direct material quantity variance calculated?	(Actual Quantity – Standard Quantity for Actual Output) × Standard Price
5.	How is the direct material price variance calculated?	(Actual Price – Standard Price) × Actual Quantity
6.	How is the direct labor rate variance calculated?	(Actual Rate – Standard Rate) × Actual Hours
7.	How is the direct labor efficiency variance calculated?	(Actual Hours – Standard Hours for Actual Output) × Standard Rate
8.	How is the material price (or labor rate) variance calculated when there is more than one input?	The price (or rate) variance is calculated for each input individually and then added together.
9.	How is the material quantity (or labor efficiency) variance calculated when there is more than one input?	The quantity (or efficiency) variance is calculated for each input individually and then added together.
10.	When there is more than one material input or labor class, what are the two quantity sub-variances?	1) The mix variance 2) The yield variance
11.	How is the **sales mix variance** for a **multiple-product firm** calculated?	The Sales Mix Variance measures the effect of the difference between the **proportions of total units sold represented by each product as planned compared to what actually occurred**. Just as we did with the manufacturing mix variance, we will use waspAM (the weighted average standard price for the actual mix) and waspSM (the weighted average standard price for the standard mix) in calculating the Sales Mix Variance for the revenue line:

		(waspAM – waspSM) × AQ
12.	How is the **sales quantity variance** for a **multiple-product firm** calculated?	The Sales Quantity Variance measures the effect of the difference between the **actual total units sold of all products** and the **budgeted total units of all products expected to be sold**. The Sales Quantity Variance does not take into consideration variances due to differences in the mix of products sold. To calculate the Sales Quantity Variance for a multiple-product firm, we use the Quantity Variance formula, but we use the weighted average standard price for the standard mix (waspSM) in the formula in place of the standard price: (AQ – SQ) × waspSM
13.	What are the four overhead variances?	1) Variable overhead spending variance 2) Variable overhead efficiency variance 3) Fixed overhead spending variance 4) Fixed overhead production-volume variance
14.	How is the total variable overhead variance calculated?	**Actual total variable overhead incurred** (money spent on these items) (AP x AQ) – **Variable overhead applied to production using <u>predetermined rate</u>** <u>(SP x SQ)</u> = **Total variable overhead variance**
15.	How is the variable overhead spending variance calculated?	**Actual total variable overhead incurred** (money actually spent) (AP x AQ) **– Budgeted variable overhead based on inputs <u>actually used</u>** <u>(SP x AQ)</u> = **Variable overhead spending variance** or **(AP – SP) × AQ**
16.	How is the variable overhead efficiency variance calculated?	**Budgeted variable overhead based on inputs actually used** (AQ x SP) – **Standard variable overhead allowed for <u>production/applied to production</u>** <u>(SQ x SP)</u> = **Variable overhead efficiency variance** or **(AQ – SQ) × SP**
17.	How is the total fixed overhead variance calculated?	**Actual** fixed overhead incurred (money actually spent) **– Standard** fixed overhead *applied* (standard rate × <u>standard usage for actual output)</u> = **Total fixed overhead variance**

18.	How is the fixed overhead spending variance calculated?	**Actual** Fixed Overhead Incurred – **Budgeted** Fixed Overheads (the flexible budget OR the static budget amount) = **Fixed Overhead Spending/Flexible Budget Variance**
19.	How is the fixed overhead production-volume variance calculated?	**Budgeted** Fixed Overheads (the flexible budget OR the static budget amount) – **Standard** fixed overhead *applied* (standard rate × standard input for actual output) = **Fixed Overhead Production-Volume Variance**
20.	What are the variances in 3-way variance analysis?	1) The **volume variance** is equal to the production-volume variance as calculated for fixed overhead. 2) The **efficiency variance** is equal to the variable overhead efficiency variance. 3) The **spending variance** is equal to the variable overhead spending variance **plus** the fixed overhead spending variance.
21.	What are the variances in 2-way variance analysis?	1) The **volume variance** is equal to the production-volume variance for fixed overhead. 2) The **controllable variance** is equal to the sum of the remaining three variances, which are the variable spending variance, variable efficiency variance, and fixed spending variance.
22.	How are sales variances calculated in comparison to the input variances?	Sales variances are calculated in much the same way as input variances, except that sales variances should use contribution per unit instead of sales price per unit (if that information is available). This is also the case when sales variances for multiple products are calculated.
23.	What are the four types of responsibility centers and what is each responsible for?	1) Cost center – the incurrence of costs 2) Revenue center – generating revenues 3) Profit center – both costs and revenues 4) Investment center – both profit and a return on investment
24.	What are the two ways of allocating common costs?	1) Stand-alone allocation 2) Incremental cost allocation
25.	How is the contribution income statement prepared?	Net revenues - Variable manufacturing costs = **Manufacturing contribution margin** - Variable nonmanufacturing costs = **Contribution margin** - Controllable fixed costs = **Controllable margin** - Non-controllable, traceable fixed costs = **Contribution by strategic business unit** - Non-controllable, untraceable fixed costs = **Operating income**

26.	How is manufacturing contribution margin calculated?	Net revenues - Variable manufacturing costs = **Manufacturing contribution margin**
27.	How is contribution margin calculated?	**Manufacturing contribution margin** - Variable nonmanufacturing costs = **Contribution margin**
28.	How is controllable margin calculated?	Contribution margin - Controllable fixed costs = Controllable margin
29.	How is contribution by strategic business unit calculated?	Controllable margin - Non-controllable, traceable fixed costs = Contribution by strategic business unit
30.	How is operating income calculated?	Contribution by strategic business unit - Non-controllable, untraceable fixed costs = Operating income
31.	What are the methods of setting the transfer price?	• Market price • Cost of production plus opportunity cost • Variable cost • Full cost • Cost plus • Negotiated price • Arbitrary pricing • Dual-rate pricing
32.	How is the transfer price calculated when the producing department has available capacity?	When there is available capacity, the transfer price needs to cover the **variable costs of production**.
33.	How is the transfer price calculated when the producing department does not have available capacity?	When there is no available capacity, the transfer price needs to cover: 1) The variable costs of production, and 2) The contribution that the producing department loses from any orders that they could not fulfill because they produced the internal order.
34.	How is return on investment calculated?	<u>Income of the Business Unit</u> Assets (Investment) of the Business Unit
35.	How is residual income calculated?	Operating income before taxes for the division, project, or investment opportunity – (Target return in dollars: Employed assets of the business unit × required rate of return) = **Residual Income**

36.	What are the four perspectives in the balanced scorecard?	1) The financial perspective 2) The customer perspective 3) The internal process perspective 4) The learning and growth perspective
37.	How are **flexible budget variances** on a sales variance report **calculated**?	Flexible Budget Variances on a Sales Variance Report can be calculated in the same way as manufacturing input Price Variances (the Direct Materials Price Variance and the Labor Rate Variance) are calculated: (AP – SP) × AQ In the formula above, the "AP" stands for the actual average revenue or cost per item sold, the "SP" stands for the budgeted average revenue or cost per item sold, and the "AQ" stands for the actual number of units sold.
38.	How are **sales variances** used?	Sales variances are used to explain the differences between actual and budgeted amounts of revenue, variable costs, and the contribution margin. Revenues, variable costs, and the contribution are the line items that are most affected by the changes in the amount of each product that is sold, the price each unit is sold for, and the cost of each unit sold.
39.	How are **sales volume variances** on a sales variance report **calculated**?	The Sales Volume Variances on a Sales Variance Report represent the variances caused by the number of units sold having been different from the number of units budgeted to be sold. The Sales Volume Variance can be calculated using the same formula that is used for manufacturing input Quantity Variances, where the "AQ" stands for the actual quantity sold, "SQ" stands for the static budget quantity budgeted to be sold, and "SP" stands for the budgeted average price per unit (for revenue) or average variable cost per unit (for variable costs): (AQ – SQ) × SP
40.	How should transactions **between subsidiaries of multinational corporations** be priced?	Transactions between subsidiaries of multinational corporations are supposed to be priced as "arm's-length" transactions. In other words, the **prices should be the same as they would be if the two parties were not related and should not be adjusted simply to shift income between countries to reduce the overall tax payment**.
41.	What are **avoidable costs and unavoidable costs** and how are they **relevant in the decision-making process**?	An **avoidable cost** is a cost that can be avoided if a particular option is selected. It is a cost that would go away if sales to a particular customer stopped or if the company stopped manufacturing a product. Avoidable costs are relevant costs to the decision-making process because they will continue if one course of action is taken but they will not continue if another course of action is taken. An **unavoidable cost** is an expenditure that will not be avoided (i.e., will not go away) regardless of which course of action is taken. Unavoidable costs would be costs for idle production facilities that

		would not be used if the product were discontinued but that the company could not dispose of. Only costs that would be avoided (i.e., costs that would go away) if the product or customer is dropped are relevant to the decision of whether or not to drop the product or customer.
42.	What are common costs?	Common costs are costs of operating a business that cannot be allocated to any specific user or users on any cause-and-effect basis. Examples of common costs are the chief executive officer's salary, the costs of the financial reporting function of the accounting department, and the costs of the budget department.
43.	What are **cost drivers**?	Cost drivers are costs that are the result of activities that are undertaken to create products or render services.
44.	What are **key performance indicators**?	Key performance indicators are the few critical metrics that are most relevant to a company's specific business strategy, and a company should track these measures rigorously rather than using many different measurements. Key performance indicators are measures of the aspects of the company's performance that are essential to its competitive advantage and therefore its success.
45.	What are **lagging indicators** and **leading indicators**?	Financial measures that focus on short-term financial performance are in fact **lagging** indicators of how the company is doing. Nonfinancial measures focus on performance that should ultimately result in improved long-term financial performance. Thus nonfinancial measures are **leading** indicators of performance.
46.	What are **Level 1 variances**?	Level 1 variances are the most global variances. Static budget variances are Level 1 variances. They are based on the income statement and merely compare the actual results with the static (master) budget. Since they are based on the income statement, Level 1 variances report variances in revenue and cost of sales for sold units only. They do not report detailed cost variances for all units produced.
47.	What are **Level 2 variances**?	Each of the static budget variances can be further broken down into two sub-variances: the flexible budget variance and the sales volume variance. These are Level 2 variances, because they give us more information about the static budget variances. These variances are also in income statement format. Because they are based on the income statement and thus report on revenues and costs for items sold, these variances are also called sales variances. The term "sales variances" distinguishes them from manufacturing input variances, which are based on items produced.
48.	What are **Level 3 variances**?	Level 3 variances can give us more information about the **causes** of the variances. Level 3 variances include manufacturing input variances, sales variances, sales quantity variances, and sales mix variances.
49.	What are **levels** in variance analysis?	Variances can be classified in terms of level. A level denotes the amount of detail that is provided by the variance. A low-level

		variance provides the least detail, whereas more information is provided by a variance with a higher-level number.
50.	What are **relevant revenues** and **relevant costs** and why are they **important in the decision-making process**?	Relevant revenues and relevant costs are those expected future revenues and costs that differ among alternatives. Only relevant revenues and costs need to be considered in the decision-making process because: • It is important to focus on the future since nothing can be done to change past costs that have already been incurred (called **sunk costs**). Because decisions focus on selecting future courses of action, sunk costs are **irrelevant** to the decision process. • We must focus only on the factors that **differ among alternatives**. Revenues and costs that are the same between options are not relevant because they will be the same no matter which option is selected.
51.	What are **shared services**?	Shared services are used by internal departments and usage of the service by the individual departments or products can be allocated to user departments in a meaningful way based upon a cost driver that represents their usage of the service.
52.	What are the **advantages** of residual income?	The primary advantage of RI is that **a project beneficial to the company is more likely to be selected**, even if its ROI is lower than the unit's existing ROI. (Using RI as a performance measure instead of ROI overcomes the tendency of managers to reject projects that would be profitable to the company but that would lower the business unit's current ROI.) Another advantage of RI is that a firm can **adjust its required rates of return for differences in risk**. A unit with higher business risk can be evaluated using a higher required rate of return than that which is used for a unit with lower business risk. RI also enables a company to use a **different investment charge for different classes of assets**. For example, the company could use a higher required rate of return for long-lived assets, especially if their resale value is expected to be low, and a lower required rate of return for shorter-term assets (such as inventory).
53.	What are the **common methods** of setting a transfer price?	• **Market price**: Market price is a transfer price equal to the current or market price of the selling division's product in an "arm's-length" transaction. • **Cost of production plus opportunity cost**: The cost of production plus opportunity cost includes the cost of production (outlay cost) and the profit margin that the selling division is giving up by selling the product internally rather than externally.

		• **Variable cost**: The variable cost method uses only the selling division's variable costs as the transfer price. • **Full cost**: The full cost method includes all materials, labor, and a full allocation of overhead in determining a transfer price. The full cost of production is calculated using absorption costing. • **Cost plus**: Under the cost plus method of setting transfer prices, the selling division adds either a fixed dollar amount or a percentage of costs to the cost of production to approximate a normal profit markup. • **Negotiated price**. • **Arbitrary pricing**. • **Dual-rate pricing**: Under the cost plus method of setting transfer prices, the selling division adds either a fixed dollar amount or a percentage of costs to the cost of production to approximate a normal profit markup.
54.	What are the **disadvantages** of using **ROI** for performance measurement?	The main problem with ROI as a performance measurement that it **measures return as a percentage rather than as a dollar amount**. If the expected ROI of a new project under consideration is lower than the division's present ROI but higher than the target rate, the manager may reject a profitable project because it would lower the division's overall ROI, even though the project would be beneficial for the company. While it is good to have a higher rate of return, the company is ultimately interested in the amount of the return. Another **disadvantage** of using ROI for performance measurement is that when a manager is evaluated using current ROI, the pressure to meet the current period's ROI target may cause short-term profits to take precedence over long-term profits.
55.	What are the **five areas** where all divisions should use the **same accounting policies**?	1. Inventory cost flow assumptions. 2. Depreciation method. 3. Asset capitalization policy. 4. Use of full costing. 5. Disposition of manufacturing variances. Any differences among divisions in the way that revenues, expenses, and assets are accounted for can significantly influence interpretation of the divisions' ROIs and their comparability.
56.	What are the **four Balanced Scorecard perspectives**?	1. **The Financial perspective** focuses on the organization's financial objectives and enables tracking of financial success and shareholder value. 2. **The Customer perspective** involves identifying the market segment or segments the company wants to target and then measuring its success in those segments. A common method of measuring this success is the trend in the company's share of the market over time and the degree to

		which it increases in line with management goals. Customer satisfaction is another vital part of the customer perspective, because if customers are not satisfied they will take their business elsewhere. 3. **The Internal Process perspective** includes innovations and improvements in products and services, operations, and customer service/support needed to create value for customers, which in turn furthers the Financial perspective. 4. **The Learning and Growth perspective** (originally called the innovation and learning perspective) formerly focused on employee learning, but it now covers not only human capital but also organizational capital and information capital. Initially innovation was part of this perspective, but users of the balanced scorecard system discovered that innovation properly belonged in the Internal Process category.
57.	What are the **four levels used for evaluation** on the contribution income statement?	1. **Level 1: Manufacturing Contribution Margin** (Net Revenue Less Variable Manufacturing Costs). The manufacturing contribution margin of the company is the amount of money that is available to cover nonmanufacturing variable costs, all fixed costs, and then flow to profit. 2. **Level 2: Contribution Margin** (Manufacturing Contribution Less Variable Nonmanufacturing Costs). The contribution margin of the company is the amount of money that is available to cover fixed costs and then flow to profit after all variable costs are covered. 3. **Level 3: Controllable Margin** (Contribution Margin Less Controllable Fixed Costs). The controllable margin (also called short-term segment manager performance) is important because it is a measurement of all the revenues and expenses (variable and fixed) that are controllable by the individual managers on a short-term (that is, less than one year) basis. The controllable margin is a useful measure of a manager's short-term performance. **4.** **Level 4: Segment Margin** (Controllable Margin Less Non-controllable, Traceable Fixed Costs). The segment margin (also called contribution by strategic business unit, or contribution by SBU) is a measure of the performance of each business unit. It may also be used as a measure of the long-term performance of the manager, if the manager can control the non-controllable traceable fixed costs over a long-term period. However, in many cases, decisions that affect non-controllable traceable fixed costs are made by others.

58.	What are the **limitations** of Level 1 variances?	• Variances caused by more or fewer sales than planned are not segregated from variances caused by other factors. • Comparison of actual with the master budget focuses on short-term performance instead of long-term success. • Managers should be evaluated on performance measures other than just whether or not they have met short-term financial targets. Meeting financial targets is only part of the measurement of performance. Manager evaluation should include not only financial measures but also non-financial measures.
59.	What are the **main classifications** of responsibility centers?	The main classifications of centers, listed in order of the most fundamental (or basic) to the most complex, are: 1. A **Cost Center** is **responsible only for the incurrence of costs**. A cost center does not earn any revenue and therefore generates no profit. 2. A **Revenue Center** is the opposite of a cost center in that it is responsible only for revenues. 3. A **Profit Center** is a department responsible for both revenues and expenses. 4. An **Investment Center** is responsible for profit (revenues and costs) and for providing a return on the capital that has been invested into it by the larger organization to which it belongs. Because it is responsible for a return-on-investment, this type of department is the most like a regular and complete business by itself. However, it is still part of a larger organization.
60.	What are the **main purposes** for **responsibility centers** and **responsibility accounting**?	The main purposes for responsibility centers and responsibility accounting are the evaluation of subunits' performance and to contribute to measuring the performance of the subunits' managers. Manager performance measurement provides motivation for managers of the subunits, which in turn benefits the company as a whole. The manager of a responsibility center should have the ability to control, or at least significantly influence, the results of the center over which he or she has control.
61.	What are the **mix variance** and **yield variance**?	The **mix variance** shows the portion of the quantity variance that resulted because the actual **mix** was different from the standard mix (that is, more of one ingredient was used and less of another ingredient was used). The **yield variance** shows the portion of the quantity variance that resulted because the **total** actual amount of all ingredients used was different from the **total** standard amount.
62.	What are the **most common factors** when deciding **which transfer pricing method** to use?	• The **goals of the company** and what method will best enable those goals to be met (goal congruence), and • Factors relating to the **capacity of the producing division**, its ability to sell the product on the open market, and the

		ability of the purchasing division to buy the product on an open market.
63.	What are the **objectives** of a transfer pricing system?	• It should promote goal congruence. • It should motivate the profit center managers to pursue their own profit goals while also working toward the success of the entire company. The selling division should be motivated to hold its costs down, and the buying division should be motivated to acquire and use the inputs efficiently. • It should help senior managers evaluate the performance of individual sub-units. • t should preserve autonomy in decision making among managers of divisions, if senior management wants a decentralized organization. • It should be equitable, permitting each unit of a company to earn a fair profit for the functions it performs. • It should meet legal and external reporting requirements. • It should be easy to apply.
64.	What are the **problems** with the balanced scorecard?	• It is difficult to use scorecards for comparisons across business units because each business unit has its individualized scorecard. Scorecard evaluation is more effective when it is used to judge the progress of an individual business unit relative to the prior year or relative to its goals rather than when used to compare a manager's performance with that of other managers or a segment's performance with that of other segments. • In order to implement balanced scorecard performance measurement, a firm must have extensive enterprise resource planning systems to capture the required information. • Non-financial data is not subject to control or audit and thus its reliability could be questionable. • The efficacy of the balanced scorecard in achieving the organization's strategic goals must be monitored closely. If all of the non-financial targets are achieved but the financial targets are not achieved, then probably a strong causal relationship does not exist between the non-financial indicators chosen for monitoring and the financial goals. The non-financial indicators may need to be re-evaluated and changed. • If the balanced scorecard is used as a "command and control" document that is used to control behavior, employees may "make the numbers" but not be committed to achieving the organization's goals. Instead, the balanced

		scorecard should be used to create an environment in which everyone can learn and grow.
65.	What are the **two ways** to allocate common costs?	1. The **stand-alone cost allocation method** determines the weights for cost allocation by considering each user of the cost as a **separate entity**. When the stand-alone method is used, total common costs are distributed among the operating units based on each unit's proportion of the entire organization, using an appropriate basis. Advocates of the stand-alone method maintain that it is fairer than the incremental cost-allocation method because each responsibility center bears a proportionate share of total costs. 2. The **incremental cost-allocation method** ranks units according to their size or on some similar basis. The largest unit is called the primary party. The primary party is charged for costs up to what its cost would be if it were the only unit. The remaining cost is allocated to the other unit or units, called incremental parties. The effect of the incremental method is that the largest unit bears all the fixed common costs plus an allocation of the variable common costs, whereas the incremental parties bear only an allocation of the variable common costs.
66.	What are the **weaknesses** of residual income?	First, it focuses on the dollar amount of the return. Although a $1 return might be beneficial for a company, the amount of the return may be so small in comparison to the amount invested that the return is not worth the effort. Another disadvantage of RI is that it is difficult to compare the performance of subunits of different sizes. A large subunit would probably have a larger Residual Income than a small unit, but the smaller unit might have a higher rate of return on its employed assets despite it lower RI. In addition, a small change in the required rate of return would have a greater absolute effect on the amount of a large unit's RI than it would on the RI of a small unit. Furthermore, RI has the same issues as ROI with respect to distortion caused by the accounting policies selected by the company. Residual Income must be interpreted carefully because of the various effects of different accounting policies on operating income and on the amount of investment.
67.	What is a **contribution income statement**?	On a contribution income statement, fixed costs are segregated from variable costs and presented on separate lines. Only variable costs are allocated to production and thus to the units sold. Variable

		expenses include not only variable production costs but also variable selling, general, and administrative expenses. The contribution margin is the difference between revenues and all variable expenses (both production and non-production variable expenses). All fixed expenses, both production and non-production, are reported below the contribution margin line as a reduction to the contribution margin.
68.	What is a **process costing system**?	A process costing system is used to assign costs to individual products when the products are all relatively similar and are mass-produced, as on an assembly line.
69.	What is a **responsibility center**?	A responsibility center is any part, segment, or subunit of an organization. A segment may be a product line, a geographical area, or any other meaningful unit. Companies will have different segments based on their activities.
70.	What is a **strategy map**?	A strategy map links the four balanced scorecard perspectives together. When the company's financial and non-financial measures are linked in this way, the non-financial measures serve as leading indicators of the firm's future financial performance. The strategy map provides a way for all employees to see how their work is linked to the corporation's goals.
71.	What is a **transfer price**?	A transfer price is the price charged by one sub-unit of a company to another sub-unit of the same company for the services or goods produced by the first sub-unit and "sold" to the second sub-unit. The product or service that is sold and purchased internally is called an **intermediate product**. It may be used as a component of a product that is sold to the final customer by the center that purchased it internally, or the center that purchased it may sell it outright to the final customer.
72.	What is **balanced scorecard**?	The balanced scorecard is a widely-used strategic performance management tool designed to manage strategic performance. The balanced scorecard transforms an organization's strategic plan from a passive document into the "marching orders" for the organization in its day-to-day activities. It provides a framework that not only provides performance measurements but helps management to identify what needs to be done and how its achievement can be measured. The balanced scorecard enables execution of strategies.
73.	What is **customer profitability analysis**?	Customer profitability analysis determines the profitability of an individual customer or a group of customers, enabling managers to coordinate their customers' costs-to-serve. A manager might want to re-price activities that cause high costs-to-serve or reduce available services for customers that are high cost-to-serve. To customers that are identified as low cost-to-serve, the manager can offer discounts in order to increase the sales volume from that group of customers. The most profitable customers can be provided with improved customer service in order to maintain their loyalty.

		If a particular customer is unprofitable because of the particular products or services the customer is purchasing or using, the manager may be able to shift that customer's mix toward higher-margin products and services, thereby converting an unprofitable customer into a profitable customer.
74.	What is job-order costing?	Job-order costing is a method in which all of the costs associated with a specific job (or client) are accumulated and charged to that job (or client).
75.	What is meant by **favorable** and **unfavorable variance**?	A **favorable variance** (represented with the letter F) is a variance that causes actual net operating income to be higher than the budgeted amount. An **unfavorable variance** (represented with the letter U) is a variance that causes actual net operating income to be lower than the budgeted amount.
76.	What is **residual income (RI)**?	Residual Income (RI) attempts to overcome the weakness in ROI by measuring the **dollar amount of return** that is provided to the company by a department or division. RI for a division is calculated as the amount of return (**operating income before taxes**) that is in excess of a **targeted amount of return** on the investments employed by that division. Residual income is the operating income earned after the division has covered the required charge for the funds that have been invested by the company in its operations. Two items that you need to know in regard to the calculation of RI are: 1. The **targeted amount of return** is usually some percentage of, or rate of return on, the total employed assets of the division, or the **invested capital** in the division, and 2. The **percentage used** in the calculation is the **required rate of return** that management has set.
77.	What is **responsibility accounting**?	Responsibility accounting is an accounting system that measures accounting results of each responsibility center separately. It is also used to measure the consolidated results of the company as a whole.
78.	What is **return on investment (ROI)**?	Return on Investment (ROI) can be used to evaluate the performance of the entire firm, but it can also be used to evaluate the performance of single divisions and their division managers. **ROI is the key performance measure for an investment center**. It measures the percentage of return that was provided on the dollar amount of the investment (that is, assets). The calculation is: Income of the Business Unit ÷ Assets (Investment) of the Business Unit

		If ROI is used as an evaluation tool, management must be certain that it is the correct measurement for the company's goals and that the ROI goals are representative of that individual department's market and business.
79.	What is the **profit margin ratio**?	A profit margin ratio is a measure of the amount of sales that actually become profits. It is the net income (or profit) amount divided by revenue (or sales). In order to increase the profit margin a manager must either: • **Increase sales** while holding costs constant, or • **Decrease costs** without losing sales, or • **Increase sales at a rate greater than the increase in costs**.
80.	What is **three-way analysis** of overhead?	In three-way analysis, the three variances are the volume, efficiency, and spending variances. 1. The **volume variance** is equal to the production-volume variance as calculated for fixed overhead. 2. The **efficiency variance** is equal to the variable overhead efficiency variance. 3. The **spending variance** is equal to the variable overhead spending variance **plus** the fixed over-head spending variance.
81.	What is **two-way analysis** of overhead?	Two-way analysis uses the same information as calculated for four-way analysis, but we are going to combine it in a slightly different manner than we do under three-way analysis. The two variances involved are called the volume variance and the controllable (or budget) variance. 1. The **volume variance** is equal to the production-volume variance for fixed overhead. 2. The **controllable variance** is equal to the sum of the remaining three variances, which are the variable spending variance, variable efficiency variance, and fixed spending variance.
82.	What is **variance analysis**?	Variance analysis is the process of comparing the actual expenses and revenues during a certain period to the budgeted amounts for that same period. With variance analysis we are able to determine the reasons why our actual results were different from the budgeted amounts. Knowing the reasons will enable us to focus our efforts on the areas that have been operating less efficiently than planned.
83.	What **other transactions** affect	• **Nonrecurring items**: Nonrecurring charges or revenues can prevent operating income of a given business unit from

	the **measurement of operating income and ROI**?	being comparable to that of prior periods and from being comparable to operating income of other business units. • **Income taxes**: Income taxes may affect various units differently, especially if the units are located in different countries with different tax rates and varying tax treaties. Even within one country, there may be different local or regional taxes. • **Foreign exchange**: Operating income and value of investments in foreign countries can vary due to fluctuations in currency exchange rates. • **Joint asset sharing**: Costs for common facilities or services need to be allocated on a fair basis, as discussed in Allocation of Common Costs. Different methods of allocating the common costs will result in different costs for each unit and thus will affect the units' operating income.
84.	What **sources** can be used to **set appropriate standards** for **usage** and **pric es**?	• **Activity analysis** involves identifying, delineating or outlining, and evaluating all the activities necessary to complete a job, a project, or an operation. • **Historical data**. • **Benchmarking** uses current practices of similar operations in other firms. • **Target costing** sets costs based on the price that the product can be sold for. • **Strategic decisions**.
85.	When the budget amount is subtracted from the actual amount, a **negative** variance for an **income** item is a [**Favorable** or **Unfavorable**] variance?	Unfavorable
86.	When the budget amount is subtracted from the actual amount, a **positive** variance for a **cost or expense** item is a [**Favorable** or **Unfavorable**] variance?	Unfavorable
87.	When the budget amount is subtracted from the actual amount, a **positive** variance for an **income** item is a [**Favorable** or **Unfavorable**] variance?	Favorable

SECTION D – Cost Management (Weightage 20%)

S.No	Questions	Answers
1.	What are effective and efficient operations?	An **effective operation** is one that achieves or exceeds the goals set for the operation. An **efficient operation** is one that makes effective use of its resources in carrying out the operation.
2.	What are costs and expenses?	**Costs** are resources given up to achieve an objective. **Expenses** are costs that have been charged against revenue in a specific accounting period.
3.	What are direct costs and cost objects?	**Direct costs** are costs that can be **traced directly to a specific cost object**. A **cost object** is anything for which a separate cost measurement is recorded.
4.	What are fixed costs and how do they behave as production levels change?	Fixed costs do not change when the level of production changes, within the relevant range of production. The **total amount of these costs does not change with a change in production volume**. However, the **cost per unit decreases as production increases and increases as production decreases**.
5.	What are variable costs and how do they behave as production levels change?	Variable costs are costs such as material and labor that are incurred only when a product is made. The **per unit variable cost remains unchanged** as production increases or decreases while **total variable cost increases as production increases and decreases as production decreases.**
6.	What are mixed costs?	Mixed costs have both a fixed and a variable component.
7.	What are product costs?	Product costs go directly into the production process, without which the product could not be made. Product costs are "attached" to each unit and will be carried on the balance sheet as inventory when production is completed.
8.	What are the three types of costs that are product costs?	1) Direct materials 2) Direct labor 3) Manufacturing overhead (both fixed and variable)
9.	What costs are included in overhead costs?	1) Overhead costs like electricity, rent, depreciation 2) Indirect labor 3) Indirect materials
10.	What are prime costs?	Prime costs are the costs of **direct material** and **direct labor**. These are the direct inputs, or the direct costs of manufacturing.
11.	What are manufacturing costs?	Manufacturing costs include **prime costs** and **manufacturing overhead applied**. These are all of the costs that need to be incurred in order to produce the product.
12.	What are conversion costs?	Conversion costs include **manufacturing overhead (both fixed and variable) and direct labor**. These are the costs that are required to **convert** the direct materials into the final product.

13.	What are period costs?	Period costs are costs for activities other than the production of the product.
14.	What are opportunity costs?	Opportunity costs are the contributions to income that are lost by not using a limited resource in its best alternative use.
15.	What are sunk costs?	Sunk costs are costs that have already been incurred and cannot be recovered. Sunk costs are **irrelevant** in any decision-making process because they have already been incurred and no present or future decision can change them.
16.	What are committed costs?	Committed costs are costs for the company's infrastructure. They are costs required to establish and maintain the readiness to do business.
17.	How is cost of goods sold calculated?	Beginning finished goods inventory + Purchases (for a reseller) **or** cost of goods manufactured (for a manufacturer) − <u>Ending finished goods inventory</u> = **Cost of Goods Sold**
18.	How is cost of goods manufactured calculated?	Direct Materials Used + Direct Labor Used + <u>Manufacturing Overhead **Applied**</u> = **Total Manufacturing Costs** + Beginning Work-in-Process Inventory − <u>Ending Work-in-Process Inventory</u> = **Cost of Goods Manufactured**
19.	What are the four main cost measurement systems?	1) Standard 2) Normal 3) Extended normal 4) Actual costing systems
20.	What are the application rate and base for direct materials and direct labor under standard costing?	**Standard** Rate and **Standard** Amount ***Allowed*** for Actual Production
21.	What are the application rate and base for direct materials and direct labor under normal costing?	**Actual** Rate and **Actual** Amount ***Used*** for Actual Production
22.	What are the application rate and base for direct materials and direct labor under extended normal costing?	**Estimated Normalized** Rate and **Actual** Amount ***Used*** for Actual Production
23.	What are the application rate and base for direct materials and direct labor under actual costing?	**Actual** Rate and **Actual** Amount ***Used*** for Actual Production

24.	What are the application rate and base for overhead under standard costing?	**Predetermined Standard** Rate and **Standard** Amount of application base ***Allowed*** for Actual Production
25.	What are the application rate and base for overhead under normal & extended normal costing?	Estimated Normalized Rate and Actual Amount of application base *Used* for Actual Production
26.	What are the application rate and base for overhead under actual costing?	**Actual** Rate and **Actual** Amount of application base ***Used*** for Actual Production
27.	How is the predetermined overhead allocation rate calculated?	*Budgeted* Dollar Amount of Manufacturing Overhead *Budgeted* Activity Level
28.	What are the four choices for level of activity?	1) Theoretical (or ideal) capacity 2) Practical (or currently attainable) capacity 3) Master budget capacity utilization (expected actual capacity utilization) 4) Normal capacity utilization
29.	How is over-applied or under-applied overhead calculated?	Actual Costs Incurred – Factory Overhead Applied During the Period = **Under (Over) Applied Factory Overhead**
30.	How is an immaterial amount of over- or under-applied overhead closed out?	Under-applied overhead is added to COGS and over-applied overhead is subtracted from COGS.
31.	How is a material amount of over- or under-applied overhead closed out?	It is distributed among the **WIP Inventory, Finished Goods Inventory,** and **Cost of Goods Sold** accounts. The variances are pro-rated according to the amount of overhead included in each that was allocated to the current period's production.
32.	What is the formula for the physical flow of goods in process costing?	Units in Beginning WIP + Units Transferred In Is equal to Units in Ending WIP + Units Completed/Transferred Out
33.	How is the number of units started and completed calculated in process costing?	# Units Completed – # Units in Beginning WIP = Units **Started and Completed** This Period
34.	How is equivalent units produced calculated in process costing under the FIFO method?	Completion of BWIP + Started & Completed + Starting of EWIP = EUP this period

35.	How is equivalent units produced calculated in process costing under the weighted average method?	Units Completed + Starting of EWIP = EUP this period
36.	What costs are included as costs incurred in the period under the FIFO method of process costing?	Only the costs incurred during the period are considered to be costs of the period. The costs that are in BWIP for the period are transferred to finished goods.
37.	What are normal and abnormal spoilage?	Normal spoilage is the amount that is expected from the production process. Abnormal spoilage is any spoilage in excess of normal spoilage.
38.	What is done with the costs allocated to normal spoilage?	The costs that have been allocated to the normally spoiled units are added to the costs of the good units that are **transferred out to finished goods** (or the next department).
39.	What is done with the costs allocated to abnormal spoilage?	Costs related to abnormal spoilage are **expensed on the income statement** in the period incurred as a **loss from abnormal spoilage**.
40.	What costs are included as costs incurred in the period under the weighted average method of process costing?	1) The costs actually incurred during the period. 2) The costs that are in BWIP at the start of the period are considered to have been incurred this period.
41.	What is operation costing?	Operation costing is a **combination of job-order costing and process costing**. A company applies the basic operation of process costing to a production process that produces batches of items. Each batch follow a similar process, but the direct materials that are input to each batch are different.
42.	What is a cost driver?	Anything (it can be an activity, an event, or a volume of something) that causes costs to be incurred each time the driver occurs.
43.	What are the categories of activities in activity based costing?	1) Unit-level 2) Batch-level 3) Product-sustaining 4) Facility-sustaining
44.	What is life-cycle costing?	The company takes a much longer view of the cost of production and attempts to allocate all of the research and development, marketing, development, after-sale service costs, and any other **cost that is associated with this product during its life cycle**.
45.	What are the three categories of costs in life-cycle costing?	1) Upstream costs 2) Manufacturing costs 3) Downstream costs
46.	What is customer life-cycle costing?	Customer life-cycle costing focuses on the total costs that will be paid by the customer during the whole time the customer owns the product: the customer's purchase cost plus the costs to use, maintain, and dispose of the product or service.

47.	What are joint products?	**Joint products** occur when one production process leads to the production of two or more finished products. These products are not identical, but they share the same production process up to what is called the **split off point**.
48.	What are byproducts?	Byproducts are the low-value products that occur naturally in the process of producing higher-value products.
49.	What are the four methods of allocating joint costs?	1) Relative sales value at split off method (or gross market value method) 2) Estimated net realizable value (NRV) method 3) Physical measure and average cost methods 4) Constant gross profit (gross-margin) percentage method
50.	What are the two methods of accounting for byproducts?	1) The production method (inventory the byproduct costs) 2) The sales method (revenue from the byproducts)
51.	What are the two differences between variable and absorption costing?	1) Their treatment of fixed manufacturing overhead 2) The income statement presentation of the different costs
52.	How are fixed factory overheads treated under absorption and variable costing?	• Under absorption costing, fixed factory overhead costs are **allocated to the units produced during the period** according to a predetermined rate. • Under variable costing, fixed factory overheads are a **period cost** that are expensed in the period when they are incurred. This means that no matter what the level of sales, all of the fixed factory overheads will be expensed in the period when incurred.
53.	What are the relationships between changes in inventory and profit for absorption and variable costing?	When Production = Sales, then Absorption = Variable When Production > Sales, then Absorption > Variable When Production < Sales, then Absorption < Variable
54.	How is the income statement presented under absorption costing?	Sales revenue – <u>Cost of goods sold</u> = **Gross profit** – Variable **non**manufacturing costs (expensed) – <u>Fixed **non**manufacturing costs (expensed)</u> = **Operating Income**
55.	How is the income statement presented under variable costing?	Sales revenue – <u>Variable manufacturing costs of items sold</u> = **Manufacturing contribution margin** – <u>Variable **non**manufacturing costs (expensed)</u> = **Contribution Margin** – All fixed manufacturing costs (expensed) – <u>All fixed **non**manufacturing costs (expensed)</u> = **Operating Income**
56.	What are the two methods of allocating	1) A single-rate method in which fixed and variable costs are allocated together.

	costs of a single service department to multiple users?	2) A dual-rate method in which fixed and variable costs are allocated separately.
57.	What are the three methods for allocating costs of multiple service departments?	1) The direct method – **all** services provided by service departments to other service departments are ignored 2) The step (or step-down) method – **some** services provided by service departments to other service departments are ignored 3) The reciprocal method – **no** services provided by service departments to other service departments are ignored
58.	What is supply chain management?	The active management of supply chain activities by the members of a supply chain with the goals of maximizing customer value and achieving a sustainable competitive advantage.
59.	What is lean manufacturing?	Lean manufacturing is a philosophy and system of manufacturing that focuses on cutting out waste in the manufacturing process. Waste is anything that does not add value to the customer or anything the customer is not willing to pay for.
60.	What are the seven primary wasteful activities addressed by lean manufacturing?	1) Overproduction 2) Delay 3) Transporting parts and materials 4) Over-processing 5) Inventory 6) Motion 7) Making defective parts
61.	What are the five key principles of lean manufacturing?	1) Customers 2) Value stream 3) Flow 4) Pull 5) Continuous improvement
62.	What is the goal of a just-in-time inventory system?	To minimize the level of inventories that are held in the plant at all stages of production, including raw materials, work-in-process, and finished goods inventories while meeting customer demand in a timely manner with high-quality products at the lowest possible cost.
63.	What is a constraint, or bottleneck?	Constraints are activities that slow down the product's total cycle time while areas and people performing other activities have slack time.
64.	What are the drum, buffer, and rope?	Drum-Buffer-Rope is the production planning methodology portion of Theory of Constraints. • The **drum** is the process that takes the longest time. • The **rope** consists of all of the processes that lead up to the drum, or the constraint. • The **buffer** is a minimum amount of WIP waiting for the constraint that is maintained to make sure the constraint process is kept busy at all times.
65.	What is the value chain?	The company's chain of activities for transforming inputs into the outputs that customers will value.
66.	What are the primary value chain activities?	• Research • Development • Design

		• Production • Marketing and sales • Distribution • Customer service
67.	What are the support value chain activities?	• Infrastructure • Information systems • Materials management • Human resources
68.	What are the three steps in value chain analysis?	1) Identify the activities that add value to the finished product. 2) Identify the cost driver or cost drivers for each activity. 3) Develop a competitive advantage by adding value to the customer or reducing the costs of the activity.
69.	What are the two categories of costs of quality?	1) Costs of conformance 2) Costs of nonconformance
70.	What are the two categories of the costs of conformance?	1) Prevention costs 2) Appraisal costs
71.	What are the two categories of the costs of nonconformance?	1) Internal failure 2) External failure
72.	What is total quality management?	TQM is the management philosophy of producing each unit properly the first time. It requires that errors be detected as soon as possible and corrected.
73.	How are **fixed factory overheads** accounted for under **variable costing**?	Under variable costing (also called direct costing), fixed factory overheads are a period cost that are expensed in the period when they are incurred. This means that no matter what the level of sales, all of the fixed factory overheads will be expensed in the period when incurred.
74.	How have manufacturing overhead costs **traditionally** been allocated?	Traditionally, manufacturing overhead costs have been **allocated to the individual products** based on either the direct labor hours, machine hours, materials cost, units of production, weight of production or some similar measure that is easy to measure and calculate. The measure used is called the **activity base**. If a company allocates factory overhead based on direct labor hours, for example, for every hour of direct labor that goes into a specific unit, a certain amount of factory overhead (the determination of how much is covered below) would be allocated to, or **applied** to, that product. By adding together the direct materials, direct labor and allocated manufacturing overhead costs, a company determines the total cost of producing that specific product.
75.	How is **abnormal spoilage accounted for**?	The costs that have been allocated to any abnormally spoiled units will be **expensed on the income statement** in that period as a **loss from abnormal spoilage**.
76.	How is **normal spoilage accounted for**?	With normal spoilage, the costs that have been allocated to the normally spoiled units are added to the costs of the good units that

		are **transferred out to finished goods** (or the next department). This will cause the cost per unit transferred in to the next department to be higher than the cost of producing a good unit in the current department.
77.	How is over- or under-applied factory overhead **accounted for in period end closing entries**?	• If the company is using only one account (Factory Overhead Control), the amounts credited to Factory Overhead Control to apply the overhead to production will decrease the balance in the account, and only the over- or under-applied amount will remain in the account at the end of the period. • If the company is using two accounts (Factory Overhead Control and Factory Overhead Applied), the Factory Overhead Applied account is closed to the Factory Overhead Control account in the closing entries. That will leave the net amount of over- or under-applied overhead in the Factory Overhead Control account, the same as if the company had been using just one account all during the period.
78.	How is the amount of **over- or under-applied** factory overhead **calculated**?	Actual Costs Incurred − Factory Overhead Applied During the Period **= Under (Over) Applied Factory Overhead**
79.	How is the High-Low Points Method **calculated**?	1. Calculate the Variable Cost Per Unit by dividing the difference between the costs for the highest production volume and the costs for the lowest production volume by the difference between the highest and lowest production volumes: Variable Cost per Unit = Difference in Costs ÷ Difference in Units This calculation gives us the variable cost per unit. We know this because the difference in costs between the two months is related only to variable costs (since we are assuming that all other costs are fixed and therefore unchanging with changes in production volume). 2. Multiply the Variable Cost per Unit by the unit volume at either the highest or the lowest production volume to get the total variable cost at that level. 3. Subtract the total variable cost from the total cost at that level to get the fixed cost.
80.	How is the income statement presented under absorption costing?	Sales revenue − Cost of goods sold – ***variable and fixed manufacturing*** *costs of items sold* **= Gross profit** − Variable **non**manufacturing costs (expensed) − Fixed **non**manufacturing costs (expensed)

		= Operating Income
81.	How is the income statement presented under variable costing?	Sales revenue – Variable manufacturing costs of items sold **= Manufacturing contribution margin** – Variable **non**manufacturing costs (expensed) **= Contribution Margin** – All fixed manufacturing costs (expensed) – All fixed **non**manufacturing costs (expensed) **= Operating Income**
82.	How is the **predetermined manufacturing overhead allocation rate** calculated using **traditional allocation**?	*Budgeted* Dollar Amount of Manufacturing Overhead ÷ *Budgeted* Activity Level
83.	How is throughput contribution margin **calculated**?	The throughput contribution margin or throughput contribution margin per unit is the selling price minus only the totally variable costs. The totally variable costs are usually only the direct materials costs. This is called super-variable costing. The assumption is made that labor and overheads are fixed costs because they can usually not be changed in the short term. If you are asked on an exam to calculate throughput contribution margin (or throughput contribution or throughput margin) for a period of time, you will need to calculate how many units can be produced in that time. The throughput contribution margin will be the throughput contribution margin per unit multiplied by the number of units that can be produced in the given time.
84.	How the over- or under-applied factory overhead balance **transferred out** when the amount is **immaterial**?	If an **under-applied** amount is immaterial it will simply be charged (debited) to COGS in that period. This will increase the COGS amount and decrease the profit for the period. If an **over-applied** amount is immaterial, this will be taken out of (credited to) COGS, reducing this amount and increasing the profit for the period. In both cases, the other side of the entry goes to close out the balance in Factory Overhead Control by reducing it to zero.
85.	How the over- or under-applied factory overhead balance **transferred out** when the amount is **material**?	If the amount of overhead that was over- or under-applied is **material**, it must be distributed among the **WIP Inventory**, **Finished Goods Inventory** and **Cost of Goods Sold** accounts. An under-applied amount will be added (debited) to these accounts while an over-applied amount will be taken out of (credited to) these accounts. The other side of the entries will bring the balance in the Factory Overhead Control account to zero as of the end of the period.

86.	In **developing a costing system**, choices need to be made in **what three categories of costing methods**?	1. The cost **measurement** method to use in allocating costs to units manufactured (standard, normal, extended normal, or actual costing). 2. The cost **accumulation** method to use (job costing or process costing). 3. The method to be used to **allocate overhead** (volume-based or activity-based).
87.	**Master budget capacity** is **best** for what **purpose**?	Master budget capacity (expected actual capacity utilization) is **best for developing the master budget**. The primary use of the projected activity level is in developing the master budget for the coming year. The master budget capacity utilization (expected actual capacity utilization) is the most appropriate activity level to use for developing the master budget.
88.	**Normal capacity** is **best** for what **purpose**?	Normal capacity is best for long-term planning. Normal capacity is often used as a basis for long-term (multi-year) plans. For long-term planning purposes, the cost to produce one unit should not change over the period of the long-term plan due only to changes in projected production levels. In other words, the cost per unit should not increase and decrease in each of the planning years due to different planned production levels in each year caused by changing projected demand in each year.
89.	**Practical capacity** is **best** for what **purpose**?	Practical capacity is **best for pricing decisions**. If demand decreases and normal capacity is being used, overhead costs will be spread over a smaller number of output units, causing the per-unit costs to increase. This can result in high, noncompetitive selling prices that cause further decreases in demand and lead to a **downward demand spiral**. A downward demand spiral is a continuing reduction in demand that occurs when costs are too high. As demand drops, the cost per unit gets higher and higher, leading to more price increases, which lead to more reduction in demand, and so forth.
90.	The **costs** in a department that **require allocation** come from **what three places**?	1. They are **incurred by the department** during the period (we will usually have materials and con-version costs in a question). 2. They are **transferred in** from the previous department. 3. They were in the department on the first day of the period in the form of **beginning work-in-process** (BWIP).
91.	**Theoretical capacity** is **best** for what **purpose**?	This is a trick question because theoretical capacity is just that: theoretical. **It has very little use in practical situations**, because it will not be attained.
92.	What are **byproducts**?	Byproducts are the low-value products that occur naturally in the process of producing higher value products. They are, in a sense, accidental results of the production process.
93.	What are carrying costs?	Carrying costs are the costs the company incurs when it holds inventory. Carrying costs include: rent and utilities related to storage; insurance and taxes on the inventory; costs of employees who manage and protect the inventory; damaged or stolen inventory; the lost

		opportunity cost of having money invested in inventory (called cost of capital); and other storage costs.
94.	What are committed costs?	Committed costs are costs for the company's infrastructure. They are costs required to establish and maintain the readiness to do business. Examples of committed costs are intangible assets such as the purchase of a franchise and the purchase of fixed assets such as property, plant and equipment. They are fixed costs that are usually on the balance sheet as assets and become expenses in the form of amortization and depreciation.
95.	What are considered **inventory costs** under **theory of constraints**?	Inventory costs are limited to costs that are **strictly variable**, called "**super-variable**," and these are usually **only direct materials**. (Note: this does not mean that absorption costing for external financial reporting purposes is done differently when TOC is being used. It means only that inventory costs for internal TOC analysis purposes are different from inventory costs for financial reporting purposes.)
96.	What are **constraints**?	Constraints are the activities that slow down the product's total cycle time while areas and people performing other activities have slack time. If managers spend their time and effort speeding up activities that are not constraints, they are wasting resources. Unnecessary efficiency just results in the buildup of work waiting to be done at the constraint, while activities following the constraint do not have enough work to do because work is held up in the constraint process.
97.	What are conversion costs?	Conversion costs include **manufacturing overhead (both fixed and variable) and direct labor**. These are the costs that are required to **convert** the direct materials into the final product.
98.	What are **cost management systems** and what is their **most important function**?	Cost management systems are used as basic transaction reporting systems and for external financial reporting. Cost management systems not only provide reliable financial reporting, but they also track costs in order to provide information for management decision-making. The most important function of cost management is to help management focus on factors that make the firm successful. The management accountant is an integral part of management, identifying, summarizing, and reporting on the **critical success factors** that are necessary for the firm's success. Critical success factors are a limited number of characteristics, conditions, or variables that have a direct and important impact on the efficiency, effectiveness and viability of an organization. They are the aspects of the company's performance that are essential to its competitive advantage and therefore to its success. Activities related to the critical success factors must be performed at the highest possible level of excellence.
99.	What are **costs** and what are **expenses**?	**Costs** are resources given up to achieve an objective. **Expenses** are costs that have been charged against revenue in a specific accounting period.

		"Cost" is an economic concept, while "expense" is an accounting concept. A cost need not be an expense, but every expense was a cost before it became an expense.
100.	What are costs of conformance?	The costs of conformance are the costs that the company incurs to assess internal quality with the purpose of insuring that no defective products reach the consumer. 1. **Prevention costs** are the costs that are incurred in order to prevent a defect from occurring in the first place. **2.** **Appraisal costs** are the costs that are incurred in order to monitor production processes and individual products and services before delivery in order to determine whether all units of the product or service meet customer requirements.
101.	What are **critical success factors**?	Critical success factors are the aspects of the company's performance that are essential to its competitive advantage and therefore to its success. Each company's critical success factors depend upon the type of competition it faces.
102.	What are **direct costs**?	Direct costs are costs that can be traced directly to a specific cost object. A **cost object** is anything for which a separate cost measurement is recorded.
103.	What are **direct materials**?	Direct materials are the materials that are directly put into the finished product. The costs included in the direct material cost are all of the costs associated with acquiring it: the item itself, shipping-in, insurance and taxes, among others. Common examples of direct materials are plastic and components.
104.	What are discretionary costs?	Discretionary costs are costs that may or may not be spent, at the decision of a manager. In the short term, discretionary costs will not cause an adverse effect on the business if they are not incurred, but in the long run they do need to be spent. These are cost decisions that are made periodically and are not closely related to input or output decisions.
105.	What are **engineered costs**?	Engineered costs are costs that have a definite physical relationship to the activity base or measure. They result from activities that have well defined cause and effect relationships between inputs and outputs and between costs and benefits. They are called "engineered costs" because engineers specify precisely how many inputs are required to generate a specific output.
106.	What are **equivalent units of production**?	Equivalent units of production refer to the number of complete units that could have been completed during the period if the company had simply produced one unit from start to finish, and then started another unit. "Completely produced" means completed from start to finish with all direct materials added and all conversion activities completed.
107.	What are **explicit costs**?	Explicit costs are also called **out-of-pocket costs**. Explicit costs involve payment of cash and include wages and salaries, office supplies, interest paid on loans, payments to vendors for raw materials, and so forth.

108.	What are fixed costs?	Fixed costs do not change within the relevant range of production. As long as the production volume remains within the relevant range, the **total amount of these costs does not change with a change in production volume**.
109.	What are **implicit costs**?	An implicit cost, also called an **imputed cost**, is a cost that does not involve any specific cash payment and is not recorded in the accounting records. Implicit costs are also called **economic costs**. They cannot be specifically segregated in financial reports, but they are needed for use in a decision-making process.
110.	What are **indirect costs**?	Indirect costs are costs that cannot be identified with a specific cost object. In manufacturing, overhead is an indirect cost. Other indirect costs include support functions such as IT, maintenance, and security and managerial functions such as executive management and other supervisory functions.
111.	What are **indirect materials**?	Similar to indirect labor, indirect materials are materials that are not the main components of the finished goods. Examples are glue, screws and nails and other materials that may not even be physically incorporated into the finished good (machine oils, lubricants, and miscellaneous supplies). Indirect materials are a manufacturing overhead cost.
112.	What are joint products?	Joint products occur when one production process leads to the production of two or more finished products. These products are not identical, but they share the same production process up to what is called the **split off point**. This is the point at which the two products stop sharing the same process and become different, identifiable products.
113.	What are manufacturing costs?	Manufacturing costs include the **prime costs** and **manufacturing overhead applied**. These are all of the costs that need to be incurred in order to actually produce the product. Manufacturing costs do not include selling or administrative costs, which are period costs.
114.	What are marginal costs?	Marginal costs are the additional costs necessary to produce one more unit.
115.	What are mixed costs?	Mixed costs have both a fixed and a variable component.
116.	What are **non-value-adding activities** in activity-based costing?	Non-value-adding activities are activities that do not add any value for the end consumer and the company should try to reduce or eliminate them. This reduction of non-value-adding costs is an additional benefit to the company (in addition to more accurate costing of products) and can lead to a reduction in the cost of production. In turn, this will either enable the company to reduce the sales price or to recognize more profit from the sale of each unit.
117.	What are **normal spoilage** and **abnormal spoilage**?	**Normal spoilage** is the amount that is expected from the production process. Any spoiled units in excess of the expected spoilage are classified as **abnormal spoilage**. This distinction is important because the treatment of the costs associated with normal and abnormal spoilage is different.
118.	What are period costs?	Period costs, as compared to product costs, are costs for activities other than production of the product. Even if these costs were not

		incurred the product could still be manufactured. Period costs are usually expensed as they are incurred. Period costs can be variable, fixed or mixed, but they are not included in the calculation of cost of goods sold or cost of goods manufactured.
119.	What are prime costs?	Prime costs are the costs of **direct material** and **direct labor**. These are the direct inputs, or the direct costs of manufacturing.
120.	What are product costs?	Product costs, or inventoriable costs, are those costs that go directly into the production process, without which the product could not be made. Product costs are "attached" to each unit and will be carried on the balance sheet as inventory when production is completed. When the item is sold, the cost will be transferred from the balance sheet to the income statement where it is classified as cost of goods sold, which is an expense.
121.	What are **separable costs**?	Costs incurred after the split off point are separable costs and they are allocated to each product as they are incurred by that product.
122.	What are some ways that **operations at the constraint process** can be **relieved**?	• Eliminate idle time at the constraint operation. • Process only products that increase throughput contribution margin and do not produce products that will simply remain in finished goods inventory. • Move products that do not need to be processed on the constraint operation to other, non-constrained machines or outsource them. • Reduce setup time and processing time at the constraint operation. • Improve the quality of processing at the constrained resource.
123.	What are sunk costs?	Sunk costs are costs that have already been incurred and cannot be recovered. Sunk costs are **irrelevant** in any decision-making process because they have already been incurred and no present or future decision can change that fact.
124.	What are the **advantages** of **centralizing** the accounting processes?	When the processing of transactions is centralized, specific types of transactions such as accounts payable, accounts receivable, and general ledger can be organized along functional lines, utilizing a smaller number of highly-trained people. The result is usually fewer errors. By reorganizing responsibilities along functional lines instead of geographical lines, responsibility for various closing tasks can be assigned to a smaller number of managers who are in closer proximity, resulting in greater efficiency. In a centralized accounting system, accounting errors can be researched more easily because of having a single database of accounting information. Analysts can more easily drill down through the data to locate problem areas when the numbers do not look right instead of having to contact the divisional accounting office and asking them to research it and then waiting for them to respond. The time required to locate and resolve errors is shortened as a result.

125.	What are the **allocation bases** for either the single-rate or dual-rate method?	• **Budgeted rate** and **budgeted hours** to be used by the operating divisions. • **Budgeted rate** and **actual hours** used by operating divisions.
126.	What are the **benefits** and **limitations** of the dual-rate method?	**Benefits** • It helps user department managers see the difference in the ways that fixed costs and variable costs behave. And it guides user department managers to make decisions that are in the best interest of the organization as a whole, as well as each individual department. **Limitations** • The cost is higher than the cost of the single-rate method because of the need to classify all of the costs of the service department into fixed and variable costs.
127.	What are the **benefits** and **limitations** of the **production** method?	**Benefits** • It is conceptually correct because byproduct inventory is recognized as an asset in the accounting period in which it is produced. • Inventory cost assigned to the main product or joint products is reduced. **Limitations** • The Production Method is more complex than the Sales Method.
128.	What are the **benefits** and **limitations** of the **sales** method?	**Benefits** • It is simpler to implement than the Production Method. • It is more practical when the dollar amounts of the byproducts are immaterial. **Limitations** • It is possible for managers to manage their earnings by timing the sale of the byproducts.
129.	What are the **benefits** and **limitations** of the single-rate method?	**Benefits**

		• The cost to implement it is low because it avoids the analysis needed to classify all of the service department's cost into fixed and variable costs. **Limitations** • The single-rate method makes fixed costs of the service department appear to be variable costs to the user departments, possibly leading to outsourcing that hurts the organization as a whole.
130.	What are the **benefits** of absorption costing?	• Absorption costing **provides matching of costs and benefits**. • Absorption costing is **consistent not only with Generally Accepted Accounting Principles but also with Internal Revenue Service** requirements for the reporting of income on income tax returns.
131.	What are the **benefits** of activity-based costing?	• ABC provides a more accurate product cost for use in pricing and strategic decisions. • By identifying the activities that cause costs to be incurred, ABC enables management to identify activities that do not add value to the final product.
132.	What are the **benefits** of enterprise resource planning?	• **Reduction in operational costs**. Communication is improved across departments, leading to greater efficiencies in production, planning, and decision-making that can lead to lower production costs, lower marketing expenses, and other efficiencies. • **Inventory management facilitated**. Detailed inventory records are available, simplifying inventory transactions. Inventories can be managed more effectively to keep them at optimal levels. • **Day-to-day operations are facilitated**. All employees can easily gain access to real-time information that they need to do their jobs. Ready access by managers facilitates their decision-making and control over the factors of production. • **Resource planning as a part of strategic planning is simplified**. Senior management has access to the information it needs in order to do strategic planning.
133.	What are the **benefits** of **extended normal costing**?	In addition to the benefits of normal costing, extended normal costing utilizes estimated labor rates, which may not be known until after the end of a reporting period. This makes it most appropriate for a professional service business.

		• The use of normal costing avoids the fluctuations in cost per unit that occur under actual costing because of changes in the month-to-month volume of units produced and in month-to-month fluctuations in overhead costs. • Manufacturing costs of a job are available earlier under a normal costing system than under an actual costing system. • Normal costing allows management to keep product costs current, because actual materials and labor costs incurred are readily available, while the actual incurred overhead costs would not be available until much later and so are applied based on a predetermined rate.
134.	What are the **benefits** of job-order costing?	• Job order costing is best for businesses that do custom work or service work. • Job order costing enables the calculation of profit on individual jobs, which can help management determine in the future which kinds of jobs are desirable. • Managers are able to keep track of the performance of individuals for cost control, efficiency, and productivity. • The records kept result in accurate costs for items produced. • Management can see and analyze each cost incurred on a job in order to determine how it can be better controlled in the future. • Costs can be seen as they are added, rather than waiting until the job is complete. This can enable accounting staff to detect costs recorded to the wrong job and correct them immediately. For long jobs, the costs can be monitored on an ongoing basis and if the costs get out of control, management can have time to make changes before the job is finished. Or, with cost-plus customers, increased costs can allow management to make customers aware in advance of cost overruns, which can lead to negotiations.
135.	What are the **benefits** of lean manufacturing?	• Quality performance, fewer defects and rework. • Fewer machine and process breakdowns. • Lower levels of inventory. • Less space required for manufacturing and storage. • Greater efficiency and increased output per person-hour. • Improved delivery performance. • Greater customer satisfaction. • Improved employee morale and involvement. • Improved supplier relations. • Lower costs due to elimination of waste leading to higher profits.

		• Increased business because of increased customer responsiveness.
136.	What are the **benefits** of life-cycle costing?	• Life-cycle costing provides a long-term, more complete perspective on the costs and profitability of a product or service when compared to other costing methods, which typically report costs for a short period such as a month or a year. • When long-term costs are recognized in advance, life-cycle costing can be used to lower those long-term costs. • Life-cycle costing includes research and development costs as well as future costs such as warranty work, enabling better pricing for profitability over a product's lifetime. • Life-cycle costing can be used to assess future resource requirements such as needed operational support for the product during its life. • Life-cycle costing can help in determining when a product will reach the end of its economic life.
137.	What are the **benefits** of **normal costing**?	• The use of normal costing avoids the fluctuations in cost per unit that occur under actual costing because of changes in the month-to-month volume of units produced and in month-to-month fluctuations in overhead costs. • Manufacturing costs of a job are available earlier under a normal costing system than under an actual costing system. • Normal costing allows management to keep product costs current, because actual materials and labor costs incurred are readily available, while the actual incurred overhead costs would not be available until much later and so are applied based on a predetermined rate.
138.	What are the **benefits of process costing**?	• Process costing is the easiest, most practical costing system to use to allocate costs for homogeneous items. It is a simple and direct method that reduces the volume of data that must be collected. • Process costing can aid in establishing effective control over the production process. Process costing can be used with standard costing by using standard costs as the incurred costs that are allocated. Use of standard costing with process costing makes it possible to track variances and to recognize inefficiency in a specific process. • It is flexible. If the company adds or removes a process, it can adapt its process costing system easily. Removal of a process might occur if the company identifies a redundant (duplicative) process, and cost savings may result. Addition of a process could occur if the company decides to produce a slightly different product or improve the quality of an existing product.

		• Management accountants can review the amounts of materials and labor used in each process to look for possible cost savings. • Process costing enables tracking of inventory. • Process costing enables obtaining and predicting the average cost of a product, an aid in providing estimates to customers.
139.	What are the **benefits** of **standard costing**?	• Standard costing prescribes expected performance and provides control. The standards establish what the costs should be, who should be responsible for them, and what actual costs are under control. • If costs remain within the standards, managers can focus on other issues. When costs vary significantly from the standards, managers are alerted that there may be problems requiring attention. This approach helps managers to focus on important issues. • Standard costing can be used in either a job costing or a process costing environment. • It simplifies the determination of equivalent-unit costs, because the standard costs serve as the cost per equivalent unit for direct materials, direct labor, and manufacturing overhead. • It makes recordkeeping easier in either a job order or a process costing system, because subsidiary ledgers need to be maintained for quantities on hand, and their associated cost is the standard cost for the period. • Standards can provide benchmarks for employees to use to judge their own performance.
140.	What are the **benefits** of the constant gross profit percentage method?	• This method is the only method for allocating joint costs under which products may receive negative allocations. This may be necessary in order to bring the gross margin percentages of relatively unprofitable products up to the overall average, if that is desired. • This method allocates both joint costs and profits. Gross margin is allocated to the joint products in order to determine the joint cost allocations so that the resulting gross margin percentage for each product is the same. • This method is relatively easy to implement, so it avoids the complexities of the NRV method.
141.	What are the **benefits** of the net realizable value method?	• The Net Realizable Value method can be used instead of the Sales Value at Split off method when selling prices for one or more products at the split off do not exist, because it provides a better measure of the benefits received than the other methods that could be used in this situation.

		• The allocation results in comparable profitability among the joint products.
142.	What are the **benefits** of the physical measure and average cost methods?	• The physical measure and average cost methods are easy to use. • The allocation is objective. • The methods are useful when rates or prices are regulated. In a regulated environment when rates are regulated and the seller is limited to a certain amount of markup over and above its costs, using selling prices or net realizable values to allocate the costs on which the prices are based leads to circular reasoning. If the seller tries to allocate joint costs according to selling prices or net realizable values of the products, it cannot be done. The seller does not know what the selling prices of the products will be until they know what their costs are, because the selling price is the cost plus a regulated amount of profit. But since the seller does not know what the selling price of each product is, they cannot know how much joint cost to allocate to each product. So using either the Relative Sales Value method or the Net Realizable Value method in a regulated environment just does not work. In that case, the Physical Measure method and the Average Cost method can be used to avoid the problem.
143.	What are the **benefits** of the relative sales value at split off method?	• Costs are allocated to products in proportion to their expected revenues, which is in proportion to the individual products' ability to absorb costs. • The method is easy to calculate and is simple, straightforward, and intuitive. • The cost allocation base is expressed in terms of a common basis – amount of revenue – that is recorded in the accounting system. • This is the best measure of the benefits received from the joint processing. It is meaningful because generating revenues is the reason why the company would incur the joint costs. • It can be used even if further processing is to be done, as long as selling prices do exist for all the joint products. Thus, it does not require information on processing after the split off, even if further processing is to be done.
144.	What are the **benefits** of variable costing?	• The impact on profits of changes in sales volume is more obvious with variable costing. • By not including fixed costs in the calculation of cost to produce, companies are able to make better and more informed decisions about profitability and product mix. • Operating income is directly related to sales levels and is not influenced by changes in inventory levels due to production or

		sales variances. This prevents managers from being able to "hide costs" on the balance sheet by increasing production, thus moving more of the fixed factory overheads to the balance sheet as inventory. Under absorption costing, a manager can increase profits simply by producing more units. • Variance analysis of fixed overhead costs is less confusing than it is with absorption costing. With variable costing, the fixed overhead variance is simply actual fixed overhead incurred minus budgeted fixed overhead. Under absorption costing, variances include comparisons with fixed overhead applied to production, which is more complex. • The impact of fixed costs on profit is obvious and visible under variable costing because they are on the income statement and shown as costs. • It is easier to determine the "contribution" to fixed costs made by a division or product – and thereby helps determine if the product or division should be discontinued. • Variable costing tends to be less confusing than absorption costing because it presents costs in the same way they are incurred: variable costs on a per-unit basis and fixed costs in total. • It is easier to assign responsibility for cost control. Operating management can control variable costs, but fixed costs are usually controlled at a higher level. • Advocates argue that variable costing is more consistent with economic reality, because fixed costs do not vary with production in the short run.
145.	What are the choices for the **activity level** to use when **calculating** a predetermined allocation rate?	• **Theoretical, or ideal, capacity** – the level of activity that will occur if the company produces at its absolute most efficient level at all times. A company will not be able to achieve this level, and manufacturing overhead will be under-applied if it is used because the resulting application rate will be too low. • **Practical (or currently attainable) capacity** – the theoretical level reduced by allowances for unavoidable interruptions such as shutdowns for holidays or scheduled maintenance, though not decreased for any expected decrease in sales demand. Though this basis is more realistic than theoretical capacity, it is still greater than the level that will be achieved and will also result in an under-application of manufacturing overhead. • **Master budget capacity utilization (expected actual capacity utilization)** – the amount of output actually expected during the next budget period based on expected demand. This level will result in a different overhead rate for each budget period because of increases or decreases in planned production due to expected increases or decreases in demand.

		• **Normal capacity utilization** – the level of activity that will be achieved in the long run, taking into account seasonal changes in the business as well as cyclical changes. Seasonal changes in business result from changes in demand during the seasons of the year, and cyclical changes are connected to the larger business cycle. Normal capacity utilization is the level of activity that will satisfy average customer demand over a long-term period such as 2-3 years.
146.	What are the **costs and shortcomings** of a just-in-time system?	The reduced level of inventory carries with it an increased risk of stock out costs and can lead to more frequent trips for parts and material inputs from sister facilities or suppliers. This can contribute to traffic congestion and environmental impacts associated with additional fuel use and additional vehicle emissions. If the products produced have large and/or unpredictable market fluctuations, a JIT system may not be able to reduce or eliminate overproduction and associated waste. And JIT implementation is not appropriate for high-mix manufacturing environments, which often have thousands of products and dozens of work centers.
147.	What are the **costs of nonconformance**?	Nonconformance costs are those costs that are incurred after a defective product has already been produced. The costs of nonconformance can be broken down into two types: 1. **Internal failure** occurs when we detect the problem before shipment to the customer. 2. **External failure** occurs when we do not detect the defect until the product is already with the consumer.
148.	What are the **critical factors** common to all TQM systems?	• They have the support and active involvement of top management • They have clear and measurable objectives • They recognize quality achievements in a timely manner • They continuously provide training in TQM • They strive for continuous improvement (kaizen) • They focus on satisfying their customers' expectations and requirements • They involve all employees
149.	What are the different types of **cost accumulation systems**?	• **Process costing** is used when many identical or similar units of a product or service are being manufactured, such as on an assembly line. Costs are accumulated by department or by process. • **Job order costing** (also called **job costing**) is used when units of a product or service are distinct and separately identifiable. Costs are accumulated by job. • **Operation costing** is a hybrid system in which job costing is used for direct materials costs while a departmental (process

		costing) approach is used to allocate conversion costs (direct labor and over-head) to products or services. Process costing and job order costing are two ends of a continuum (with operation costing in the middle). The primary difference between process costing and job order costing is the extent of averaging used in computing unit costs of products or services.
150.	What are the **five key principles** that guide lean manufacturing?	1. **Customers** – Understand your customers and identify what is important to them. Specify value from the standpoint of the customer. 2. **Value stream** – The value stream is the set of steps and activities performed to deliver the product or service to the customer. Identify the value stream for each product or service. 3. **Flow** – Make the steps occur so the product or service flows smoothly to the customer. Eliminate steps that do not create value for the customer. 4. **Pull** – Producing or servicing is done based on customer demand. **5.** **Continuous improvement** – Seek perfection by continuing to make improvements.
151.	What are the **four categories of activities** in activity-based costing?	1. **Unit-level activities** – These activities are performed for each **unit** that is produced. Some examples are hours of work, inspecting each item, operating a machine and performing a specific assembly task. 2. **Batch-level activities** – These activities occur each time a **batch** is produced. Some examples are machine setup, purchasing, scheduling, materials handling and batch inspection. 3. **Product-sustaining activities** – These activities are incurred in order to **support the production of a different product** from what is currently produced. Examples include product design and engineering changes. **4.** **Facility-sustaining activities** – These activities are incurred to **support production in general**, such as security, maintenance, plant management, depreciation of the factory and property taxes.
152.	What are the **issues** associated with spoilage?	• How many units were spoiled? • How are the spoiled units classified – as normal or abnormal? • What is the cost that is allocated to each spoiled unit? • What is done with the costs associated with each soiled unit?
153.	What are the **limitations** of absorption costing?	• When a greater number of products are produced than are sold during a period, it causes Inventory to increase. Since fixed overhead is charged to the units produced in absorption

		costing, an increase in Inventory means that some of the current period fixed costs remain in the ending inventories. This creates an opportunity for plant managers to manipulate reported net income by overproducing in order to keep some of the fixed costs on the balance sheet in Inventory. The fixed costs are released into Cost of Goods Sold expense only when the inventory is sold in a subsequent period. Thus the effect of this manipulation is to move net operating income from a future period to the current period. It also creates a buildup of inventories that is not consistent with a profitable operation. • When the number of units sold is greater than the number of units produced, Inventory decreases. Net income under absorption costing will be lower than it would be under variable costing, because some prior period fixed manufacturing costs will be expensed under absorption costing along with the current period's fixed manufacturing costs.
154.	What are the **limitations** of activity-based costing?	• Not everything can be allocated strictly on a cost driver basis. This is particularly true in respect to facility-sustaining costs. • ABC is expensive and time consuming to implement and maintain. Inclusion of administrative overhead in product costs is not in compliance with any generally accepted accounting principles or with U.S. tax reporting regulations. Thus a company using ABC to allocate administrative overhead to production will need to keep two sets of records: one for external reporting with administrative overhead costs expensed as incurred and one for internal decision-making utilizing administrative overhead costs included in product costs.
155.	What are the **limitations** of **actual costing**?	• Because actual costs must be computed and applied, information is not available as quickly after the end of a period as it is with standard costing. • Actual costing leads to fluctuations in job costs because the amount of actual overhead incurred fluctuates throughout the year. • It requires the use of subsidiary ledgers to maintain the details of actual costs for direct materials and direct labor. • Like normal costing, actual costing is not appropriate for process costing because the actual costs would be too difficult to trace to individual units produced. Therefore, it is used primarily in a job costing environment.
156.	What are the **limitations** of **extended normal costing**?	The limitations of extended normal costing are the same as the limitations of normal costing:

		• Using a predetermined factory overhead rate to apply overhead cost to products can cause total overhead applied to the units produced to be greater than the actual overhead incurred when production is higher than expected; and overhead applied may be less than the amount incurred if actual production is lower than expected. • Applied overhead may also be smaller than the amount incurred if the actual amount of incurred overhead was greater than expected. • Normal costing requires the use of subsidiary ledgers to maintain the details of actual costs for direct materials and direct labor. • Normal costing is not appropriate for process costing because the actual costs would be too difficult to trace to individual units produced, so it is used primarily for job costing.
157.	What are the **limitations** of job-order costing?	• Employees are required to keep track of all the direct labor hours used and all the materials used. • The focus is on direct costs of products produced. The focus on direct costs can allow for inefficiencies and increasing overhead costs. • Depending on the type of costing being used, overhead may be applied to jobs on the basis of predetermined rates. If the overhead application rates are out of date, the costing can be inaccurate. Charging the variances to individual jobs may not be possible if jobs have been closed out by the time the variances are recognized. Furthermore, if the customer is a cost-plus customer, it may not be possible to charge the customer for a cost overrun that is not detected until the job has been closed out. • If overhead is applied on the basis of predetermined rates and the rates are not calculated on any meaningful basis, the cost of each job will not be meaningful. This can occur most easily when overhead is allocated on the basis of machine hours or direct labor hours. Allocation of overhead using activity-based costing is more accurate but is also more time-consuming. • To produce meaningful results, job order costing requires a lot of accurate data entry. There are many opportunities for mistakes because of the massive amount of data recording required, and if not corrected, the errors can lead to poor management decisions. • The use of job order costing is limited to businesses that do customer or service work. It is not appropriate for high volume manufacturing or for retailing.

158.	What are the **limitations** of life-cycle costing?	• When life-cycle costing is used to spread the cost of fixed assets over the life of a product, the assumption may be made that the fixed assets will be as productive in later years as when they were new. That may not be an accurate assumption, because a piece of equipment may gradually slow down, resulting in lower output and lower profitability toward the end of its life. • Accurate estimation of the operational and maintenance costs for a product during its whole lifetime can be difficult. • Cost increases over the life of the product need to be considered. • Life-cycle costing can require considerable time and resources, and the costs may outweigh the benefits.
159.	What are the **limitations** of **normal costing**?	• Using a predetermined factory overhead rate to apply overhead cost to products can cause total overhead applied to the units produced to be greater than the actual overhead incurred when production is higher than expected; and overhead applied may be less than the amount incurred if actual production is lower than expected. • Applied overhead may also be smaller than the amount incurred if the actual amount of incurred overhead was greater than expected. • Normal costing requires the use of subsidiary ledgers to maintain the details of actual costs for direct materials and direct labor. • Normal costing is not appropriate for process costing because the actual costs would be too difficult to trace to individual units produced, so it is used primarily for job costing.
160.	What are the **limitations of process costing**?	• Process costing can introduce large variances into the costing system if standard costs allocated to the units are not up to date. Depending upon how the variances are resolved, these variances could cause the product to be over- or under-costed, which could lead to pricing errors. • Process costing can be time-consuming for management accountants. • Calculating the equivalent units for beginning and ending work-in-process inventory can lead to inaccuracies, since the percentage of completion of those inventories may be subjective (an estimate or even a guess). • Process costing cannot provide an accurate cost estimate when a single process is used to produce different (joint) products. • Process costing is not suitable for custom orders or diverse products.

		• Since the work of an entire department is combined in the process costing system, process costing makes it difficult to evaluate the productivity of an individual worker.
161.	What are the **limitations** of **standar d costing**?	• If the variances from the standards are used in a negative manner, for instance to assign blame, employee morale suffers and employees are tempted to cover up unfavorable variances and to do things they should not do in order to make sure the variances will be favorable. • Output in many companies is not determined by how fast the employees work but rather by how fast the machines work. Therefore, direct labor quantity standards may not be meaningful. • There is more to consider than just whether a variance is "favorable" or "unfavorable." A favorable materials quantity variance could result from using less materials than should be used, which will result in substandard output. So variances must be interpreted carefully. • There may be a temptation on the part of management to emphasize meeting the standards without considering other important things such as maintaining and improving quality, on-time delivery, and customer satisfaction. • Meeting standards may not be enough. Continual improvement is necessary to survive in a competitive environment.
162.	What are the **limitations** of the net realizable value method?	• This method is complex. It requires information on the specific sequence of further processing and the separable costs of further processing, as well as the point at which individual products will be sold. • The NRV method is often implemented with simplified assumptions. Companies assume a specific set of processing steps beyond the split off point, but they may actually do something else and in fact may change the steps frequently. • Selling prices of joint products may vary frequently, but the Net Realizable Value method uses a single set of selling prices throughout an accounting period. This can introduce inaccuracies into the allocations.
163.	What are the **limitations** of the physical measure and average cost methods?	• The Physical Measure and Average Cost methods can result in a product cost that is greater than their market value for some of the joint products. The physical measures of the individual products may have no relationship to their respective abilities to generate revenue. If weight or size is used, the heaviest or largest product will be allocated the greatest amount of the joint cost; but that product may have the lowest sales value. Products with a high sales value per weight or size would show

		large profits, while products with a low sales value per weight or size would show large losses. • Physical measures are not always comparable for products. For example, some products might be in liquid form (i.e., petroleum), whereas some might be in gaseous form (i.e., natural gas). Or some might be measured by weight whereas others might be measured by size. In this situation, the Physical Measure method cannot be used.
164.	What are the **limitations** of the relative sales value at split off method?	• To use this method, selling prices at the split off point must exist for all of the products. If they do not, this method cannot be used. • Market prices of joint products may vary frequently, but the Sales Value at Split off method uses a single set of selling prices throughout an accounting period. This can introduce inaccuracies into the allocations.
165.	What are the **limitations** of variable costing?	• Variable costing does not provide proper matching of costs and benefits. • Since only variable manufacturing costs are charged to the inventory in variable costing, this method requires separating all manufacturing costs into their fixed and variable components. • To prepare a complete income statement based on variable costing, it is also necessary to separate the selling and administrative costs into their fixed and variable components.
166.	What are the major Kanban **principles**?	• **Kanban works from upstream to downstream in the production process**, starting with the customer's order. At each step, only as many parts are withdrawn as the Kanban instructs, helping ensure that only what is ordered is made. The necessary parts in a given step always accompany the Kanban to ensure visual control. • **The upstream processes produce only what has been withdrawn**. This includes producing items only in the sequence in which the Kanban are received and producing only the number indicated on the Kanban. • **Only products that are 100 percent defect-free continue on through the production line**. In this way, each step recognizes and corrects the defects that are found before any more can be produced. • **The number of Kanban should be decreased over time**. As mentioned above, Kanban are used when the needed components do not show up on time. As areas of needed improvement are addressed, the total number of Kanban is minimized. By constantly improving production control and reducing the total number of Kanban, continuous

		improvement is facilitated while concurrently reducing the overall level of stock in production.
167.	What are the **objectives** of TQM?	• Enhanced and consistent quality of the product or service • Timely and consistent responses to customer needs • Elimination of non-value-adding work or processes, which leads to lower costs • Quick adaptation and flexibility in response to the shifting requirements of customers
168.	What are the **only two differences** between **varia ble** and **absorption** costin g?	1. Their treatment of fixed manufacturing overhead 2. The income statement presentation of the different costs
169.	What are the **physical measure** and **average cost methods**?	These two methods are essentially the same. In the **Physical Measure** method, the joint cost allocation is done based on the weight, volume, or other physical measure of the joint products, such as pounds, tons, or gallons. In the **Average Cost** method, the joint cost allocation is done based on the physical units of output. In both methods, joint costs are allocated proportionately among the joint products, so that each product is allocated the same amount of joint cost per unit of measure, whether that unit is a unit of physical measure or a unit of output.
170.	What are the **primary** value chain activities?	• **Research** is the search for knowledge that can be used to create new or improved products, services or processes. **Development** uses those research findings in the planning process to improve these products, processes or services, which the company intends to sell or use internally. **Design** is the detailed planning and engineering for these efforts. • **Production** is the acquisition of raw materials, coordination and assembly required to produce a product or deliver a service. The costs of production include direct materials, direct labor and factory overhead (inventoriable costs). • **Marketing and sales** includes advertising, promotion and sales activities. **Distribution**, or delivery of products or services to customers, is also a part of marketing. • **Customer service** includes customer support and warranty services after a sale.
171.	What are the **reasons for allocating shared service costs**?	• It provides accurate departmental and product costs for use in making decisions, valuing inventory, and evaluating the

		efficiency of departments and the profitability of individual products. • It motivates managers and other employees to make their best effort in their own areas of responsibility to achieve the company's strategic. • It provides an incentive for managers to make decisions that are consistent with the goals of top management. • It provides a fair evaluation of the performance of segments and segment managers. • It justifies costs, such as transfer prices. • It can also be used to compute reimbursement when a contract provides for cost reimbursement.
172.	What are the **seven primary wasteful activities** addressed by lean manufacturing?	1. **Overproduction**, or making more items than you can sell. 2. **Delay**, or waiting for processing, parts sitting in storage. 3. **Transporting** parts and materials from process to process or to various storage locations. 4. **Over-processing**, or doing more work on a part or product than is necessary. 5. **Inventory**, or committing money and storage space to unsold parts or products. 6. **Motion**, or moving parts more than the minimum amount required to complete and ship them. 7. **Making defective parts**, creating parts or products that are not sellable due to defects and must be discarded or reworked.
173.	What are the **single-rate** and **double-rate** method of allocation?	• **Single-Rate Method** – The single-rate method does not separate fixed costs of service departments from their variable costs. It puts all of the service department costs into one cost pool and allocates the costs using one allocation base. • **Dual-Rate Method** – The dual-rate method breaks the cost of each service department into two pools, a variable-cost pool and a fixed-cost pool, and allocates each cost pool using a different cost-allocation base.
174.	What are the **steps** in managing constraints?	1. Identify the constraint. 2. Determine the most profitable product mix given the constraint. 3. Maximize the flow through the constraint. 4. Add capacity to the constraint. **5.** Redesign the manufacturing process for flexibility and fast cycle time.
175.	What are the **steps** in process costing?	1. Determine the physical flow of goods 2. Calculate how many units were started and completed during the period 3. Determine when materials are added to the process

		4. Calculate the equivalent units of production for materials and conversion costs 5. Calculate the costs incurred during the period for materials and conversion costs 6. Calculate the cost per equivalent unit for materials and conversion costs **7.** Allocate the costs for materials and conversion costs separately between EWIP and Transferred Out according to the equivalent units in each.
176.	What are the **support** value chain activities?	• **Infrastructure** refers to the company's support systems that enable it to maintain its day-to-day activities. Infrastructure includes functions such as accounting, legal, administrative, and general management. • **Information systems** are the electronic systems for maintaining records of inventory, sales, prices, and customer service. • **Materials management** is logistics. The logistics function manages the movement of physical materials through the value chain. Materials management controls procurement as well as movement of the procured materials through production and distribution. • The **human resources** function aids the organization in obtaining and keeping the right mix of skilled people needed to perform its value creation activities effectively. The human resources function also ensures that the people are properly trained, motivated and compensated.
177.	What are the **three amounts of work** that may apply to an **individual unit** during the period?	1. **Completed** (beginning work-in-process inventory that has been completed) meaning that some of the work was done in the previous period. 2. **Started and Completed**, meaning that the unit was started on or transferred in during the period and was completely finished during this period. **3. Started**, meaning that these are units that were started on or transferred in during the period, but were not finished at the end of the period and thus have not yet been transferred out of the process.
178.	What are the **three categories of costs** in life-cycle costing?	**Upstream Costs (before production)** • Research and Development • Design – prototyping (the first model), testing, engineering, quality development **Manufacturing Costs**

		• Purchasing • Direct and indirect manufacturing costs (labor, materials and overhead) **Downstream Costs (after production)** • Marketing and distribution • Services and warranties
179.	What are the **three categories of costs** included in **manufacturing (factory) overhead**?	1. **Indirect materials** – materials not identifiable with a specific product or job, such as cleaning supplies, small or disposable tools, machine lubricant and other supplies. 2. **Indirect labor** – salaries and wages not directly attributable to a specific product or job, such as those of the plant superintendent, janitorial services and quality control. **3.** **General manufacturing overheads**, such as facilities costs (factory rent, electricity and utilities) and equipment costs, including depreciation and amortization on plant facilities and equipment.
180.	What are the **three main types** of product costs?	• Direct materials • Direct labor • Manufacturing overhead (both fixed and variable)
181.	What are the **three methods of allocation** when costs are allocated to **multiple** service or support departments?	1. **The direct method**: under the direct method the reciprocal services that are provided by the different shared service departments to each other are ignored. The company will simply allocate all of the shared service departments' costs directly to the production departments. The allocation is made on a basis that is reasonable and hopefully equitable to the production departments. 2. **The step (or step-down) method**: in the step-down method we only make one allocation of the costs of each service department. After a particular service department has had its costs allocated, it will not receive any costs from other service departments. This leads to a stair step-like diagram of cost allocations as below. All costs ultimately end up allocated to the production departments. The order of allocation can be any order management chooses. 3. **The reciprocal method**: this is the most complicated and advanced of these methods because it recognizes all of the services that are provided by the shared service departments to the other shared service departments. Because of this detailed allocation between and among the shared service departments, the reciprocal method is the most theoretically correct method to use. However, a company will need to

		balance the additional costs required in doing this against the benefits that are received.
182.	What are the **three possible locations** in the financial statements for **per-unit overhead costs**?	1. In ending **WIP Inventory** on the balance sheet if the item has not yet been completed at the end of the period. 2. In **Finished Goods Inventory** on the balance sheet if the item has been completed but not sold. 3. As an expense in **Cost of Goods Sold** on the income statement if the item has been sold.
183.	What are the **three steps** in value chain analysis?	1. Identify the activities that add value to the finished product. 2. Identify the cost driver or cost drivers for each activity. 3. Develop a competitive advantage by adding value to the customer or reducing the costs of the activity.
184.	What are the **two basic things** required to have a **competitive advantage**?	1. Distinctive competencies and the superior efficiency, quality, innovation and customer responsiveness that result from them. 2. The **profitability** that is derived from the **value** customers place on its products, the **price** that it charges for its products, and the **costs** of creating those products.
185.	What are the **two inventory flow systems** used in process costing?	1. **First-in-first-out (FIFO)** – In FIFO we assume that in each period we finish what is in BWIP before starting any new units. 2. **Weighted Average (WAVG)** – In WAVG we do not assume that the units in BWIP are finished first and as a result, all of the units (both those from BWIP and those transferred in or started this period) will be treated the same. The costs of beginning WIP and the work done during the current period will be combined and averaged (this is the weighted averaging).
186.	What are the **two** primary methods of **allocating overhead**?	1. **Volume-based** methods of allocating manufacturing overhead to products or jobs are also called traditional methods. Volume-based methods allocate overhead on the basis of a cost driver that is volume-based, such as number of units produced, number of direct labor hours, or number of machine hours. Assigning overhead according to number of units assumes that every unit or job uses the same amount of overhead. Assigning overhead according to number of direct labor hours or number of machine hours assumes that each product or job uses overhead based on its usage of a single cost driver. In many companies, neither of these assumptions is adequate to produce accurate overhead allocation. **2.** **Activity-based methods** allocate manufacturing overhead to units or jobs using multiple cost drivers based on cause-and-effect criteria. Activity-based costing uses some volume-based

		cost drivers and some non-volume-based cost drivers to allocate overhead more accurately by better reflecting resource consumption.
187.	What are **value chain financial statements**?	In value chain financial statements, all the costs for primary activities are considered product costs that are allocated to products and inventoried whereas all the costs for support activities are considered period costs that are expensed as incurred. Value chain financial statements are significantly different from conventional financial statements because many costs that are period costs in conventional financial statements (research and development, product design, marketing and sales, customer service) would be inventoriable costs in value chain financial statements. Value chain financial statements do not conform to any Generally Accepted Accounting Principles, so their use is limited to internal decision-making.
188.	What are **value-adding activities** in activity-based costing?	Value-adding activities are activities (costs) that add value to the customer. This means that these activities add something to the product that customers are willing to pay for. Even though these activities are value-adding activities, they must be monitored to make certain that the costs are not excessive.
189.	What are variable costs?	Variable costs are costs such as material and labor that are incurred only when a product is made. The **per unit variable cost remains unchanged** as production increases or decreases.
190.	What is a **business process**?	A business process is a related group of activities encompassing several functions that produces a specific product or service of value to a customer or customers. It is also activities that result in higher quality or lowered costs of a product or service.
191.	What is a **cause-and-effect (Ishikawa)** diagram?	A cause-and-effect diagram, or Ishikawa, diagram, organizes causes and effects visually to sort out root causes and identify relationships between causes. This idea was identified by Karou Ishikawa, who noted that it is often difficult to trace the many causes leading to a single problem. An Ishikawa diagram consists of a spine, ribs and bones, so it is also called a fishbone diagram. The end of the spine is the quality problem; the spine itself connects the main causes, the ribs — to the effect, the quality problem.
192.	What is a **cost driver** in activity-based costing?	A cost driver is anything (it can be an activity, an event or a volume of something) that causes costs to be incurred each time the driver occurs.
193.	What is a **cost object** in activity-based costing?	A cost object is anything for which costs are accumulated for managerial purposes. Examples of cost objects are a specific job, a product line, a market or certain customers.
194.	What is a **cost of quality report**?	The costs of quality (conformance and nonconformance) can be quantified and documented on a **cost of quality (COQ) report**. A cost of quality report shows the financial impact of implementing processes for prevention and appraisal and for responding to internal and external failures.

195.	What is a **cost pool**?	A cost pool is a group of indirect costs that are being grouped together for allocation on the basis of some cost allocation base. Cost pools can range from very broad, such as all plant overhead costs, to very narrow, such as the cost of operating a specific machine.
196.	What is a **current use assessment**?	A current use assessment is a customer-centered approach based on the idea that every aspect of the financial function should be traceable to internal customer needs. Internal customers are the internal users of the financial outputs. Current use assessment identifies the outputs and activities that are depended on by users and that must remain a part of the redesigned processes. A current use assessment determines what reports are being used and by whom, how often updates are needed, and what information in the reports is most essential. Surveys can be utilized to find out what reports users use, why they use them, and whether they are satisfied or dissatisfied with them. The surveys can also be used to gather information for a "wish list" of information the users would like to receive.
197.	What is a **demand-pull system**?	In a pull system, essentially nothing is produced until a customer orders it. This requires close coordination between workstations. Close coordination between workstations can keep the flow of goods smooth in spite of the low levels of inventory.
198.	What is a histogram?	A histogram is a bar graph that represents the frequency of events in a set of data. Patterns that may not be apparent when just looking at a set of numbers become clear in a histogram.
199.	What is a **normal cost system**?	In a normal cost system, **direct materials and direct labor** costs are applied to production differently from the way they are applied in standard costing. In normal costing, direct materials and direct labor costs are applied at their **actual** rates multiplied by the **actual amount of the direct inputs used** for production. Normal costing is used mainly in job costing.
200.	What is a Pareto diagram?	A Pareto diagram is a specific type of histogram. Vilfredo Pareto, a 19th-century Italian economist, came up with the now well-known 80-20 observation, or **Pareto principle**. After management pinpoints which 20% of the causes are accounting for 80% of the problems, it can focus efforts on improving the areas that are likely to have the greatest overall impact. In addition to showing the frequency of the causes for the quality problems with bookcases, a Pareto diagram puts them in order from the most frequent to the least frequent. Furthermore, it adds a curve to the graph showing the cumulative number of causes, going from the most frequent to the least frequent.
201.	What is a **process walk-through**?	A **process walk-through** is a demonstration or explanation detailing each step of a process. To conduct a process walk-through, a member of the process redesign team meets with the process owner and each

		participant in the process in order to gain a thorough understanding of how the work gets done from beginning to end for the purpose of uncovering opportunities for improvement. A **process owner** is a person who has the ultimate responsibility for the performance of a process and who has the necessary authority and ability to make changes in the process.
202.	What is a **push system**?	In a push system, a department produces and sends all that it can to the next step for further processing, which means that the manufacturer is producing something without understanding consumer demand. The result of a push system can be large, useless stocks of inventory.
203.	What is a **quality circle**?	A quality circle is a small group of employees who work together and meet regularly to discuss and resolve work-related problems and monitor solutions to the problems. This form of communication is vital to a successful TQM program.
204.	What is a semi-fixed cost?	A semi-fixed cost is fixed over a given, small range of activity, and above that level of activity, the cost suddenly jumps. It stays fixed again for a while at the higher range of activity, and when the activity moves out of that range, it jumps again. A semi-fixed cost moves upward in a step fashion, staying at a certain level over a small range and then moving to the next level quickly. All fixed costs behave this way, and a wholly fixed cost is also fixed only as long as activity remains within the relevant range.
205.	What is a semi-variable cost?	A semi-variable cost has both a fixed component and a variable component. There is a basic fixed amount that must be paid regardless of activity, even if there is no activity, and added to that fixed amount is an amount that varies with activity.
206.	What is a **standard cost system**?	A standard cost system assigns standard, or planned, costs to units produced. The standard cost of producing one unit of output is based on the standard cost for one unit of each of the inputs required to produce that output unit, with each input multiplied by the number of units of that input **allowed** for one unit of output. The inputs include direct materials, direct labor and allocated overhead. The standard cost is what the cost **should be** for that unit of output. Standard costing can be used in either a process costing or a job-order costing environment.
207.	What is a **work cell**?	Each work cell produces a specific product or product type. The work cells are generally laid out in a U-shape or horseshoe shape, but the shape can be whatever works best. The configuration's purpose is to enable workers to easily move from one process to another and to pass parts from one worker to another with little effort. The goal in the layout of the work cell is for the workers to be able to pass a part or product through every needed process with a minimum amount of wasted motion and distance. Each worker in each cell knows how to operate all the machines in that cell and can perform supporting tasks

		within that cell, reducing downtime resulting from breakdowns or employee absences.
208.	What is **activity-based management**?	Activity-based management (ABM) is closely related to and draws upon data from activity-based costing. Activity-based management is a means of performing value chain analysis and business process reengineering. Activity-based management uses activity analysis and activity-based costing data to improve the value of the company's products and services and to increase the company's competitiveness. **Operational ABM** uses ABC data to improve efficiency. The goal is for activities that add value to the product to be identified and improved, while activities that do not add value are reduced in order to cut costs without reducing the value of the product or service. **Strategic ABM** uses ABC data to make strategic decisions about what products or services to offer and what activities to use to provide those products and services. Because ABC costs can also be traced to individual customers, strategic ABM can also be used to do customer profitability analysis in order to identify which customers are the most profitable so the company can focus more on them and on serving their needs.
209.	What is an **activity** in activity-based costing?	An activity is an event, task or unit of work with a specified purpose. Examples of activities are designing products, setting up machines, operating machines, making orders or distributing products.
210.	What is an **actual costing system**?	In an actual costing system, no predetermined or estimated or standard costs are used. Instead, the actual direct labor and materials costs and the actual manufacturing overhead costs are allocated to the units produced. The cost of a unit is the actual direct cost rates multiplied by the actual quantities of the direct cost inputs used and the actual indirect (overhead) cost rates multiplied by the actual quantities used of the cost allocation bases. Actual costing is practical only for job order costing for the same reasons that normal and extended normal costing are practical only for job order costing. In addition, actual costing is seldom used because it can produce costs per unit that fluctuate significantly. This fluctuation can lead to errors in management decisions such as pricing of the product, decisions about adding or dropping product lines, and performance evaluations.
211.	What is an **effective operation**?	An effective operation is one that achieves or exceeds the goals set for the operation. The ultimate goal is to maximize shareholder value. Effectiveness in reaching its goals can be measured by analyzing the firm's critical success factors.
212.	What is an **efficient operation**?	An efficient operation is one that makes effective use of its resources in carrying out the operation.
213.	What is an **extended normal cost system**?	With an extended normal cost system (a variation on normal costing), the costs for direct materials and direct labor are applied to production

		by multiplying **estimated or normal rates** (not the actual rates that are used in normal costing) by the **actual amount of the direct inputs used**. The estimated or normal rates are not called standard costs, though, because this is not a standard cost system and because the costs are applied by multiplying the estimated/normal rate by the **actual amount** of the resource used, not by the standard amount allowed as in standard costing. Extended normal costing would be most likely to be used in a job order environment and/or a service business.
214.	What is an opportunity cost?	An opportunity cost is a type of implicit cost. Opportunity cost is an economics term, and opportunity cost is considered an economic cost. It is the contribution to income that is lost by not using a limited resource in its best alternative use. When calculating the opportunity cost, it includes only the expenditures that would not be made in the other available alternatives and/or the contribution that would have been earned if an alternative decision had been made.
215.	What is **benchmarking**?	**Benchmarking** is the process of measuring the organization against the products, practices and services of some of its most efficient global competitors or against those of other segments of the firm. The company can use these standards, also called **best practices**, as a target or model for its own operations. Through the application of research and sophisticated software analysis tools, companies undertake **best practice analysis** and then implement improvements in the firm's processes match or beat the benchmark. The improvements could include cutting costs, increasing output, improving quality, and anything else that will aid the firm in achieving its strategic business goals and objectives.
216.	What is **business process reengineering**?	In business process reengineering, management starts with a clean sheet of paper and redesigns processes to accomplish its objectives. Operations that have become obsolete are discarded.
217.	What is **competitive advantage**?	Competitive advantage is an advantage that a company has over its competitors that it gains by offering consumers greater value than they can get from its competitors. The greater value may be in lower prices for the same product or service; or it may be in offering greater benefits and service than its competitors do, thereby justifying higher prices; or it may be offering greater benefits at the same or even at a lower price than its competitors charge. A company that has competitive advantage will be more profitable than the companies it competes with for customers. The higher its profits are in comparison to its competitors, the greater its competitive advantage will be. Competitive advantage leads to increased profitability; and greater profitability leads to increased competitive advantage. Competitive advantage makes the difference between a company that succeeds and a company that fails.

218.	What is **cost of goods manufactured** and how is it calculated?	The cost of goods manufactured (COGM) represents the cost of the units ***completed and transferred* out of work-in-process** during the period. For a manufacturing company this amount will be part of the cost of goods sold calculation. COGM does not include the cost of work that was done on units that were not finished during the period. COGM is calculated using the following formula: Direct Materials Used* + Direct Labor Used + Manufacturing Overhead **Applied** **= Total Manufacturing Costs** + Beginning Work-in-Process Inventory – Ending Work-in-Process Inventory **= Cost of Goods Manufactured** * Direct Materials Used = Beginning Direct Materials Inventory + Purchases + Transportation-In – Net Returns – Ending Direct Materials Inventory
219.	What is **cost of goods sold** and how is it calculated?	Cost of goods sold (COGS) represents the cost to produce or purchase the units that were sold during the period. It is perhaps the largest individual expense item on the income statement. As such, it is important that this amount is calculated accurately. COGS is calculated using the following formula: Beginning finished goods inventory + Purchases (for a reseller) **or** cost of goods manufactured (for a manufacturer) – Ending finished goods inventory **= Cost of Goods Sold**
220.	What is **customer life-cycle costing**?	Customer life-cycle costing looks at the cost of the product from the customer's (the buyer's) standpoint. It focuses on the total costs that will be paid by the customer during the whole time the customer owns the product: the customer's purchase costs plus costs to use, maintain, and dispose of the product or service. For example, the life-cycle cost of laundry equipment includes the purchase cost plus the cost for energy to operate it over its lifetime, the cost of repairs, and the cost to dispose of it at the end of its life. Customer life-cycle costing is important to a company because it is part of the pricing decision. If a product is expected to require minimal maintenance when compared with its competition, the company can charge a price for the product that is higher than what the competition is charging for their products, and the total cost to the customer may still be lower than the cost for the competitor's product.

221.	What is **customer-response time**?	Customer-response time, or cycle time, is the measurement of the length of time between the order by the customer and the receipt of the product by the customer. The components of cycle time are **order receipt time** (from receipt of order until we are ready to produce it), **manufacturing cycle time** (from readiness to produce to completion of the product), and **order delivery time**.
222.	What is **departmental overhead allocation**?	In departmental overhead allocation, a company has a cost pool for each department that the products pass through in production. Each department's overhead costs are put into a separate cost pool, and then the overhead is allocated according to the cost basis that managers believe is best for that department.
223.	What is **direct labor**?	Direct labor costs are the costs of labor that can be directly traced to the production of a product. Assembly line workers are direct labor costs for a manufacturing company.
224.	What is **drum-buffer-rope**?	Drum-Buffer-Rope is the production planning methodology portion of Theory of Constraints. It is a tool that can be used to balance the flow of production through the constraint. It minimizes the buildup of excess inventory at the constraint, while at the same time keeping it producing at all times. • **Drum**: The drum is the process that takes the longest time. It is the constraint. The constraint is called the drum because it provides the beat that sets the pace for the whole production process. All production flows must be synchronized to the drum. • **Rope**: The rope consists of all of the processes that lead up to the drum, or the constraint. Activities preceding the drum must be carefully scheduled so that they do not produce more output than can be processed by the constraint, because this creates excess inventory and its associated costs without increasing throughput contribution margin. But at the same time, the constraint must be kept working with no down time. • **Buffer**: The buffer is a minimum amount of work-in-process inventory (a "buffer" inventory) of jobs waiting for the constraint that is maintained to make sure the constraint process is kept busy at all times. Production schedules are planned so that workers in the non-constrained processes will not produce any more output than can be processed by the drum, the constraint process; but at the same time, they will produce enough to keep the buffer full.
225.	What is **enterprise resource planning**?	Enterprise Resource Planning (ERP) is a successor to Manufacturing Resource Planning. It is usually a suite of integrated applications that is used to collect, store, manage and interpret data across the organization. Often the information is available in real-time. The applications share data, facilitating information flow among business functions.

		ERP systems integrate not only production information but also the sales, marketing, customer service and all accounting functions. ERP systems track all of a firm's resources (cash, raw materials, and fixed assets, for example) as well as the status of its commitments (orders, purchase orders, and payroll, for example).
226.	What is included on a **theory of constraints report**?	A theory of constraints report conveys throughput contribution margin and selected operating data. It identifies each product's throughput contribution margin per hour required for the constraint. It also identifies the most profitable product(s) and enables monitoring to achieve maximum profitability given existing constraints. By identifying the most profitable products, it can assist in making decisions about product mix.
227.	What is **indirect labor**?	Indirect labor is the labor that is part of the overall production process but does not come into direct contact with the product. The maintenance department is a common example. Indirect labor is a manufacturing overhead cost.
228.	What is **kaizen**?	Kaizen is part of the lean manufacturing philosophy. The term kaizen is a Japanese word that means "improvement." As used in business, it implies "continuous improvement," or slow but constant incremental improvements being made in all areas of business operations.
229.	What is **Kanban**?	Kanban is a Japanese inventory system. The word "Kanban" means "card" or "sign" or "visual record" in Japanese. Kanban is an integral part of lean manufacturing and JIT systems. Kanban provides the physical inventory control cues that signal the need to move raw materials from the previous process. The core of the Kanban concept is that components are delivered to the production line on an "as needed" basis, the need signaled, for example, by receipt of a card and an empty container, thus eliminating storage in the production area. Kanban is part of a chain process where orders flow from one process to another, so production of components is pulled to the production line, rather than pushed (as is done in the traditional forecast-oriented system).
230.	What is **lean manufacturing**?	The emphasis in lean manufacturing is on cutting out waste in the manufacturing process. "**Waste**" is anything other than the minimum amount of equipment, materials, parts, and working time that is absolutely essential to add value to the customer. Waste is anything that does not add value to the customer or anything the customer is not willing to pay for. Identifying and eliminating waste is a primary focus of lean manufacturing.
231.	What is life-cycle costing?	In life-cycle costing a company does not determine the production cost in the short-term sense of the production of one unit. Rather, the company takes a much longer view to the cost of production and attempts to allocate all of the research and development, marketing, development, after-sale service and support costs and any other **cost**

		that is associated with this product during its life cycle. The life cycle of the product may be called its **value chain**.
232.	What is manufacturing cycle efficiency?	Manufacturing cycle efficiency, or MCE, is the ratio of the actual time spent on production to the total cycle time. Manufacturing Cycle Efficiency (MCE) = Value-Adding Manufacturing Time ÷ Total Manufacturing Cycle Time Notice that only actual manufacturing time, time when value is being added to the product, is included in the numerator. Waiting time, time spent on equipment maintenance and other non-value-adding time is not included in the numerator. Companies would like their MCE to be as close to 1 as possible, because that means very little time is being spent on non-value-adding activities.
233.	What is **manufacturing cycle time**?	**Manufacturing cycle time**, also called **manufacturing lead time** or **throughput time**, is usually defined as the amount of time between the receipt of a customer order and the shipment of the order. However, different firms may define the beginning of the cycle differently. For some, it begins when a customer places an order. For others, it can begin when a production batch is scheduled, when the raw materials for the order are ordered, or when actual production on the order begins.
234.	What is **manufacturing overhead**?	Manufacturing overhead costs are the company's costs related to the production process that are not direct material or direct labor, but are necessary costs of production. Examples are indirect labor, indirect materials, rework costs, electricity and other utilities, depreciation of plant equipment, and factory rent.
235.	What is **manufacturing resource planning**?	Manufacturing Resource Planning (MRPII) is a successor to Material Requirements Planning (MRP). While MRP is concerned mainly with raw materials for manufacturing, MRPII's concerns are more extensive. MRPII integrates information regarding the entire manufacturing process, including functions such as production planning and scheduling, capacity requirement planning, job costing, financial management and forecasting, order processing, shop floor control, time and attendance, performance measurement, and sales and operations planning. An MRPII system is designed to centralize, integrate and process information for effective decision making in scheduling, design engineering, inventory management and cost control in manufacturing.
236.	What is **material requirement planning**?	Material requirements planning, or MRP, is an approach to inventory management that uses computer software to help manage a manufacturing process. It is a system for ordering and scheduling of dependent demand inventories.

		Dependent demand is demand for items that are components, or subassemblies, used in the production of a finished good. The demand for them is dependent upon the demand for the finished good. MRP is a "push-through" inventory management system. In a push-through system, finished goods are manufactured for inventory on the basis of demand forecasts. MRP makes it possible to have the needed materials available when they are needed and where they are needed.
237.	What is meant by **continuous flow**?	The goal of lean manufacturing is to maintain continuous flow, meaning once you begin producing a product, you keep it moving through the value stream without ever placing it into a holding area for later processing.
238.	**What is operation costing** and **when** is it used?	Operation costing is a **hybrid, or combination, of job-order costing and process costing**. In this method of costing, a company applies the basic operation of process costing to a production process that produces batches of items. These different batches all follow a similar process, but the direct materials that are input to each batch are different. Examples of a system where this would be appropriate are clothing, furniture, shoes and similar items. As you can see, for each of these items, the general product is the same (for example, a shirt), but the materials that are used in each shirt may be different.
239.	What is **outsourcing**?	In outsourcing, an external company performs one or more of a company's internal functions. By outsourcing certain functions to a specialist, management can free up resources within the company in order to focus on the primary operations of the company. It may also be cheaper to outsource a function to a company that specializes in an area than it is to run and support that function internally. The disadvantage of outsourcing is that the company loses direct control over these functions.
240.	What is **plant-wide overhead allocation**?	In plant-wide overhead allocation, a company puts all of its overhead costs into one cost pool and then allocates the costs in that cost pool to products using one allocation basis, usually machine hours or labor hours.
241.	What is **process analysis**?	Process analysis is used to understand the activities included in a process and how they are related to each other. A process analysis is a step-by-step breakdown of the phases of the process that conveys the inputs, outputs, and operations that take place during each phase of the process. The process analysis usually involves developing a process flowchart, illustrating the various activities and their interrelationships.
242.	What is **process costing**?	Process costing is used to allocate costs to individual products when the products are all relatively similar and are mass-produced. Process costing is basically applicable to assembly lines and anything that shares a similar production process. In process costing all of the costs incurred by a process (a process is often referred to as a department) are collected and then allocated to the individual goods that were

		produced, or worked on, during that period within that process (or department).
243.	What is **process mapping**?	Process mapping may be used to provide a visual map of the way information, documents, and work is routed through a process. Process maps can pinpoint problem areas such as bottlenecks within the system, places where reports are being prepared manually due to fragmentation of data, and rework.
244.	What is **rework**?	When spoiled goods are fixed and prepared for sale, this is called rework. The costs incurred in rework of **normally** spoiled goods should be **charged to the factory overhead account** and allocated to all good units as part of factory overhead. Costs incurred in rework of **abnormally** spoiled units should be **expensed**.
245.	What is **shrinkage**?	Shrinkage occurs when a product simply evaporates or losses some of its quantity through time. We account for it in the same manner as spoilage – if it is normal it is charged to good units produced and if it is abnormal it is charged to the income statement.
246.	What is **spoilage**?	Spoilage is the term used for defective units that are **not transferred** to the next process.
247.	What is **statistical quality control**?	Statistical quality control (SQC), or statistical process control (SPC), is a method of determining whether a process is in control or out of control. Some variations in quality are expected, but if too many units are tested and found to be outside the acceptable range, the process may not be in control. A **control chart** is used to record observations of an operation taken at regular intervals. This sample is used to determine whether all the observations fall within the specified range for the operation, and the intervals are measurable in time, batches, production runs or any other method of delineating an operation.
248.	What is **supply chain management**?	Supply chain management is the active management of supply chain activities by the members of a supply chain with the goals of maximizing customer value and achieving a sustainable competitive advantage. The supply chain firms endeavor to develop and run their supply chains in the most effective and efficient ways possible. Supply chain activities cover product development, sourcing, production, logistics, and the information systems needed to coordinate these activities.
249.	What is the **accounting problem** that arises with **standard costing**?	An accounting problem arises with standard costing because: • The **actual** costs per unit for the inputs used are usually not exactly the same as the standard costs per unit of input, and • The **number of units of inputs actually used** is usually not exactly the same as the standard amounts allowed. In a standard cost system, differences between actual costs and standard costs for direct materials and direct labor are accounted for using variance accounts in the general ledger. The differences are accumulated in these variance accounts throughout the reporting

		period, and at the end of the period, they are transferred out in the closing entries.
250.	What is the **advantage** of a just-in-time system?	The advantage of a JIT system is reduction in the cost of carrying the inventory. The cost savings include reduction in the risk of damage, theft, loss, or a lack of ability to sell the finished goods.
251.	What is the **constant gross profit (gross-margin) percentage method**?	This method allocates the joint costs so that all of the joint products will have the same gross margin percentage. It is done by "backing into" the amount of joint cost to be allocated to each of the joint products. Step 1: Calculate the gross margin percentage for the total of both (or all, if more than two) of the joint products to be included in the allocation by subtracting the total joint and total separable costs from the total final sales value and dividing the remainder by the total final sales value. This is done for all of the joint products produced during the period, not for all of the joint products sold during the period. This is the total gross margin percentage. Step 2: Calculate the gross profit for each of the individual products by multiplying the total gross margin percentage calculated in Step 1 by each individual product's final sales value. Step 3: Subtract the gross profit calculated in Step 2 and any separable costs from each individual product's final sales value. The result of this subtraction process will be the amount of joint costs to allocate to each product.
252.	What is the **cost function** for total manufacturing costs?	Y = F + VX Where: Y = Total Costs F = Fixed Costs V = Variable Costs X = Total Production
253.	What is the **cost of quality**?	The cost of quality includes not only the cost of producing quality products, but it is also the cost of **not** producing quality products. Over the long term, **not** producing a quality product is more expensive because it means that the company will lose customers. There are four different costs of quality and they are classified into two larger categories, which are the **costs of conformance** and the **costs of nonconformance**. There are two subcategories of costs within each of these two larger categories.
254.	What is the **effect on profit** of changing **inventory levels** under	**Production & Sales** **Profit**

	absorption vs. variable costing?	Production = Sales — Absorption = Variable Production > Sales — Absorption > Variable Production < Sales — Absorption < Variable
255.	What is the **estimated net realizable value** method?	This method can be used if one or more of the joint products **must** be processed beyond the split off point in order to be sold. It may also be used under certain circumstances if one or more of the joint products **may** be processed beyond the split off point in order to increase its value above the selling price at the split off point. This method is essentially the same as the Relative Sales Value method, and the allocation is done in the same way, except an **estimated Net Realizable Value** (NRV) is used for the product or products that must be or will be processed further. The estimated NRV for a product to be processed further is calculated as: Sales price of items produced that will be sold in the future – Separable costs that are incurred after the split off point **= Estimated Net Realizable Value**
256.	What is the **goal** of **just-in-time manufacturing**?	The goal of a JIT system is to minimize the level of inventories that are held in the plant at all stages of production, including raw materials, work-in-process, and finished goods inventories while meeting customer demand in a timely manner with high-quality products at the lowest possible cost.
257.	What is the **High-Low Points Method**?	The High-Low Points Method is often used to separate fixed from variable costs when they are not segregated in the information we have. For this, we use the highest and lowest observed values of the cost driver within the relevant range.
258.	What is the **limitation** of the constant gross profit percentage method?	This method assumes that all products have the same ratio of cost to sales value, which is probably not the case.
259.	What is the **main issue** with joint products?	The main issue with joint products is how to account for the joint costs (those costs incurred prior to the split off point) and how to allocate these costs to the different products. Accurate allocation is needed primarily for financial reporting purposes and pricing decisions. We need to accurately determine the inventory cost of each unit of each joint product so that the balance sheet will be accurate. And since the inventory cost of each unit becomes its cost of goods sold when it is sold, we need to know the amount of cost to be expensed to COGS for each unit sold.

260.	What is the primary **benefit** of **actual costing**?	The primary benefit of using actual costing is that the costs used are actual costs, not estimated costs.
261.	What is the **production method** of accounting for **byproducts**?	In the production method, the costs that are allocated to the byproducts are inventoried, and the sales revenue received from the sale of the byproduct is treated as a reduction of the costs of production of the main product. Byproducts are inventoried in a separate inventory account at their estimated net realizable value. Inventoried costs allocated to the main product or joint products are reduced by the NRV allocated to the byproduct. When the byproduct is sold, the company recognizes no revenue or cost of goods sold but simply debits cash or accounts receivable and credits Byproduct Inventory. And when the main product or joint products are sold, the COGS for the main product or joint products is lower because their inventory cost has been decreased by the NRV of the byproduct.
262.	What is the **relative sales value at split off method**?	Joint costs are allocated on the basis of the sales values of each product at the split off point, relative to the total sales value of all the joint products. This method can be used only if all of the joint products can be sold at the split off point (i.e., with no further processing). The formula to allocate the costs between or among the products is as follows, for each of the joint products: **(Sales Value of Product X ÷ Total Sales Value of all Joint Products) × Joint Costs**
263.	What is the **relevant range**?	The relevant range is the range of production in which the fixed cost is unchanged. As long as production activity remains within the relevant range, an increase in the number of units produced will not cause an increase in the total fixed costs.
264.	What is the **sales method** of accounting for **byproducts**?	In the Sales Method, the byproduct costs are not put into inventory separately from the main product or joint products. Instead, all of the costs of production are allocated to the main product or joint products in inventory. When the main product or joint products are sold, their COGS will be higher than it would have been under the Production Method. Since the byproduct is not put into inventory at all, when it is sold the sale is recorded the way service revenue would be recorded, with no associated COGS. So the company debits cash or accounts receivable and credits revenue for the amount of the sale.
265.	What is the **throughput contribution margin**?	**Throughput contribution margin** is the rate at which **contribution margin dollars** are being earned. Throughput contribution margin is the revenue earned from the sale of units minus the totally variable costs only (usually only direct materials) for those units produced during a given period of time.

266.	What is the value chain?	The value chain describes the company's chain of activities for transforming inputs into the outputs that customers will value. This process of transformation includes all of the **primary activities** (business functions) that add value to the product or service, as well as **support activities**. It is the **chronological sequence** of these activities that adds value to the customer.
267.	What is **Theory of Constraints**?	Theory of Constraints (TOC) was developed by Eliyahu M. Goldratt in the 1980s. Theory of Constraints says that constraint processes are the only areas where improvements in their performance will bring about a meaningful change in overall profitability. If you want to improve profitability, you need to identify the constraints and focus on them. Theory of Constraints focuses on measurements that are linked directly to performance measures such as net profit, return on investment, and cash flow. It gives managers a method of making decisions on a day-to-day basis that will truly affect the overall performance of the organization.
268.	What is total quality management (TQM)?	TQM describes an approach that is committed to customer satisfaction and continuous improvement of products or services. The basic premise of TQM is that quality improvement is a way of increasing revenues and decreasing costs. As such, a company should always strive for improvement in performing its job and producing its product **correctly the first time**. Total Quality Management is a **prevention** technique. The costs of implementing a TQM program are classified on a Cost of Quality Report as **prevention** costs.
269.	What is **value chain analysis**?	Value chain analysis can help an organization gain competitive advantage by identifying the ways in which the organization creates value for its customers. Value chain analysis identifies the steps or activities that do and do not increase the value to the customers. Once those areas are identified, the organization can maximize the value by increasing the related benefits or reducing (even eliminating) non-value-adding activities.
270.	What is **waste**?	Waste is the material that is left over after production is complete. It is simply unused and is now unusable materials.
271.	What **journal entry** is made when **each unit is produced**?	**Debit** WIP Inventory **Credit** Factory Overhead Control
272.	What **journal entry** is made when **factory overhead costs** are actually **incurred**?	**Debit** Factory Overhead Control **Credit** Cash (or Accounts Payable)
273.	**When** can job-order costing be used?	Job-order costing can be used when all of the products or production runs are unique and identifiable from each other. A good example of this is an audit or legal firm. As employees work on a particular client or case, they charge their time and any other costs to that specific job. At the end of the project, the company simply needs to add up all of

		the costs assigned to it to determine the cost. Performance measurement can be done by comparing each individual job to its budgeted amounts or by using a standard cost system.
274.	Where does the reengineering process **begin**?	The reengineering process begins with the **customer**, not with the company's product or service. The reengineering team asks itself how it can reorganize the way work is done to provide the best quality and the lowest-cost goods and services to the **customer**.
275.	Why does **productivity increase** as **commitment to quality increases**?	• **A reduction in the number of defective units**. This in turn reduces the amount of time, material and effort wasted on unusable output as well as time spent fixing salvageable defective units. (There is a term called the hidden factory that refers to the time and effort spent on rework and repair.) • **A more efficient manufacturing process**. By looking from a quality production standpoint, the company may remove or change inefficient, unproductive or non-value-adding activities. • **A commitment to doing it right the first time**. This is related to the first item, but as the culture in the company focuses on doing it right the first time, the employees of the company can take a more conscientious approach to their work, and this may lead to greater productivity.

SECTION E – Internal Controls (Weightage 15%)

S.No	Questions	Answers
1.	What is corporate governance?	Corporate governance includes all of the means by which businesses are directed and controlled, including the rules, regulations, processes, customs, policies, procedures, institutions, and laws that affect the way the business is administered. Corporate governance spells out the rules and procedures to be followed in making decisions for the corporation.
2.	Who is responsible for corporate governance?	Corporate governance is the joint responsibility of the board of directors and management.
3.	What are the **responsibilities** of the **board of directors**?	**The board of directors of a company is responsible for ensuring that the company is operated in the best interest of the shareholders, who are the owners of the company.** Thus, the members of the board of directors represent the owners of the company. The board's responsibility is to provide governance, guidance and oversight to the management of the company. The board has the following specific responsibilities: • Selecting and overseeing management. • Because it elects the company's management, the board determines what it expects from management in terms of integrity and ethics and it confirms its expectations in its oversight activities. • The board has authority in key decisions and plays a role in top-level strategic objective-setting and strategic planning. • Because of its oversight responsibility, the board is closely involved with the company's internal control activities. • Board members need to be familiar with the company's activities and environment, and they need to commit the time required to fulfill their board responsibilities, even though they may be outside, independent directors. • Board members should investigate any issues they consider important. They must be willing to ask the tough questions and to question management's activities. • Because board members are responsible for questioning and scrutinizing management's

		activities, it is important that the board have members who are independent of the company.
4.	What are the **responsibilities** of the **Chief Executive Officer (CEO)**?	The responsibilities of the CEO are determined by the corporation's board of directors. A CEO's responsibilities and authority can be extensive, or they can be very limited, depending upon how much authority and responsibility the board of directors delegates to the CEO. A CEO should **not** serve as chairman of the board of directors. Since the board's responsibilities include monitoring the CEO, the CEO should not serve as Chairman of the Board, because that creates a conflict of interest. The CEO would be leading the body that would be monitoring the CEO.
5.	What is the COSO definition of internal control?	"Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance."
6.	Internal control provides reasonable assurance about achievement of objectives in what three areas?	1) Operations 2) Reporting 3) Compliance
7.	Who is responsible for internal controls?	The **board of directors oversees** the IC system. The **CEO** is responsible for the IC system and the "**tone at the top**." **Senior managers delegate responsibility** for establishment of internal control policies and procedures. **Financial officers and their staffs** are central to the exercise of control. **Internal auditors** play a monitoring role. Virtually **all employees** are involved in internal control.
8.	What are the **two main provisions** of the **Foreign Corrupt Practices Act (FCPA)**?	1. **Anti-bribery provision**. Under the FCPA, it is illegal for any company or anyone acting on behalf of a company to bribe any foreign official in order to obtain or retain business. In addition, a firm, or an individual acting on behalf of a firm, will be held criminally liable if it makes payments to a third party with the knowledge that those payments will be used by the third party as bribes. **2. Internal control provision**. The fundamental premise of the internal-control requirements of the FCPA is that effective internal control acts as a deterrent to illegal payments. Therefore, under the Foreign Corrupt Practices Act corporate management is required to maintain books,

		records, and accounts that accurately and fairly reflect transactions and to develop and maintain a system of internal accounting control.
9.	What is **internal audit's primary role**?	Internal audit's primary role is assessing internal controls over the reliability of financial reporting, the effectiveness and efficiency of operations, and the organization's compliance with applicable laws and regulations. According to IIA (Institute of Internal Auditors) Internal Auditing Standard 2110, this includes assessing and making appropriate recommendations for improving the governance process in the following areas: • Promoting appropriate ethics and values within the organization. • Ensuring effective organizational performance, management and accountability. • Communicating risk and control information to appropriate areas of the organization. • Coordinating the activities of and communicating information among the board, external and internal auditors, and management.
10.	What is **internal control**?	Internal control is a process that is carried out by an entity's board of directors, management and other personnel that is designed to provide **reasonable assurance** that the company's **objectives** relating to operations, reporting, and compliance will be achieved. 1. **Operations** objectives relate to the **effectiveness and efficiency of operations**, or the extent to which the company's basic business objectives are being achieved and its resources are being used effectively and efficiently. Operations objectives include operational and financial performance goals and safeguarding of assets against loss. 2. **Reporting** objectives include **internal and external financial and non-financial reporting**. Reporting objectives include reliability, timeliness, transparency, or other requirements as set forth by regulators, recognized standard setters, or the entity's policies. 3. **Compliance** objectives relate to the organization's **compliance with applicable laws and regulations**, encompassing all laws and regulations to which the company is subject.

11.	What are the five components of internal control?	1) Control environment 2) Risk assessment 3) Control activities 4) Information and communication 5) Monitoring activities
12.	What are the **characteristics** of **effective control environments**?	• They demonstrate a **commitment to integrity and ethical values**. • The **board of directors demonstrates independence from management and exercises oversight** over development and performance of internal control. • With the oversight of the board, **management establishes structures, reporting lines, and appropriate authorities and responsibilities** to enable the corporation to pursue its objectives. • The organization demonstrates a **commitment to attract, develop, and retain competent individuals in alignment with objectives**. • The organization **holds individuals accountable for their internal control responsibilities** in pursuit of objectives.
13.	What are the **principles** of **risk assessment**?	• The company's **objectives must be specified clearly enough so that the risks to those objectives can be assessed**. • The organization **identifies risks to the achievement of its objectives and analyzes them** to determine how the risks should be managed. • The organization **considers the potential for fraud in assessing the risks to the achievement of its objectives**. • The organization **identifies and assesses changes that could impact the organization's system of internal controls**.
14.	What are **control activities**?	Control activities are actions established by policies and procedures that help ensure that management's instructions that are intended to limit risks to the achievement of the organization's objectives are carried out. Control activities may be preventive or detective and can include a range of activities such as authorizations and approvals, verifications, reconciliations, and business performance reviews. Segregation of duties is typically

		built in to the selection and development of control activities.
15.	What are the **types of transaction control activities**?	• **Authorization and approvals**. Authorization confirms that the transaction is valid, in other words that it represents an actual economic event. • **Verifications**. Items are compared with one another or an item is compared with a policy, and if the items do not match or the item is not consistent with policy, follow up occurs. • **Physical controls**. Equipment, inventories, securities, cash and other assets are secured physically in locked or guarded areas with physical access restricted to authorized personnel and are periodically counted and compared with amounts in control records. • **Controls over standing data**. Standing data, such as a master file containing prices or inventory items, is often used in the processing of transactions. Controls need to be put into place over the process of populating, updating, and maintaining the accuracy, completeness and validity of the data in the master files. • **Reconciliations**. Reconciliations compare two or more data elements and, if there are differences, action is taken to make the data agree. • **Supervisory controls**. Supervisory controls determine whether other transaction control activities are being performed completely, accurately, and according to policy and procedures.
16.	What are the **principles** of **monitoring activities**?	• The organization **selects, develops, and performs ongoing and/or separate evaluations** to ascertain whether the components of internal control are present and functioning. • The organization **evaluates and communicates internal control deficiencies** in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.
17.	What are the **two methods** of monitoring?	Monitoring can be done in two ways: • through **ongoing evaluations** that are built into business processes during normal operations and provide timely information, and

		• through **separate evaluations** conducted periodically by management with the assistance of the internal audit function.
18.	What are the **principles** of **information and communication**?	• The organization should **obtain or generate and use relevant, quality information** to support the functioning of other components of internal control. • The organization should **internally communicate information**, including objectives and responsibilities for internal control, necessary to support the functioning of other components of internal control. • The organization should **communicate with external parties** regarding matters affecting the functioning of other components of internal control.
19.	What are **commonly accepted transaction control objectives**?	• **Authorization**. All transactions are approved by someone with the authority to approve the specific transactions. • **Completeness**. All valid transactions are included in the accounting records. • **Accuracy**. All valid transactions are accurate, are consistent with the originating transaction data, and the information is recorded in a timely manner. • **Validity**. All recorded transactions fairly represent the economic events that occurred, are lawful, and have been executed in accordance with management's authorization. • **Physical safeguards and security**. Access to physical assets and information systems are controlled and restricted to authorized personnel. • **Error handling**. Errors detected at any point in processing are promptly corrected and reported to the appropriate level of management. • **Segregation of duties**. Duties are assigned in a manner that ensures that no one person is in a position to both perpetrate and conceal an irregularity.
20.	How is **segregation of duties** maintained in an information system?	Responsibilities within the Information Systems Department should be separated from one another. An individual with unlimited access to a computer, its programs, and its data could execute a fraud and at the same time conceal it. Therefore, effective segregation of

		duties should be instituted by separating the **authority** for and the **responsibility** for the function.
21.	What is **segregation of duties**?	Segregation of duties refers to duties being divided among various employees to reduce the risk of errors or inappropriate activities. Separating functions ensures that no single individual is given too much responsibility **so that no employee is in a position to both perpetrate and conceal irregularities**. Different people must always perform the following four functions of related activities: 1. **Authorizing a transaction**. 2. **Recordkeeping: Recording** the transaction, preparing source documents, maintaining journals. 3. Keeping **physical custody** of the related asset: For example, receiving checks in the mail. 4. The **periodic reconciliation** of the physical assets to the recorded amounts for those assets.
22.	Sarbanes-Oxley applies to what kind of companies?	Sarbanes-Oxley applies to all publicly-held companies in the U.S., all of their divisions, and all of their wholly-owned subsidiaries.
23.	**SOX Section 203** requires **audit partner rotation** according to what **schedule**?	The purpose of the audit partner rotation requirement is to ensure that a “new look” is taken periodically at the financial statements. Therefore, the lead audit partner and the concurring review audit partner must rotate off a particular client’s audit after five years. They must then remain off that audit for another five years. Other audit partners in the engagement team must rotate off after seven years and remain off for two years if they meet certain criteria.
24.	What does **SOX Section 302** require of the **signing officers** of SEC reports?	Sarbanes-Oxley requires that each annual or quarterly report that is filed or submitted in accordance with the Securities Exchange Act of 1934 (that is, SEC reports) must include certifications by the company’s principal executive officer or officers and its principal financial officer or officers. This certification must indicate the following: • Each signing officer has **reviewed** the report. • The report does not contain any untrue material statement or omit to state any material fact that could cause the report to be misleading. • To the best of the officer’s or officers’ knowledge, the financial statements and all the other related information in the report fairly present in all

		material respects the financial condition and results of operations of the company for all of the periods presented in the report.
25.	What is required by **SOX Sections 404(a)** and **404(b)**?	Section 404(a) requires each annual report required by the SEC to: • State the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting. • Contain an assessment by management of the adequacy of the company's **internal control over financial reporting** (ICFR for short). Section 404(b) requires the company's independent auditor to report on and attest to management's assessment of the effectiveness of the internal controls. In other words, according to Section 404(a) management is required to document and test its internal financial controls and to report on their effectiveness. In many firms, the internal audit activity is very involved in the management review and testing of the internal controls. Furthermore, according to Section 404(b) the external auditors are then required to review the supporting materials used by management and/or internal auditing in developing their internal financial controls report. This report is done in order to assert that management's report is an accurate description of the internal control environment.
26.	What two reports does the external auditor provide for a publicly traded company?	1) An opinion on whether the **financial statements** present fairly, in all material respects, the financial position, results of operations, and cash flows of the company, in conformity with generally accepted accounting principles. 2) An opinion on how effectively the **company's management has maintained effective internal control over financial reporting**.
27.	The **external auditor's report on the financial statements** expresses one of what **four opinions**?	• **Unqualified** – Most audit reports are unqualified, meaning that the results are "clean." The auditor expresses the opinion that the financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows of the company, in conformity with generally accepted accounting principles.

		• **Qualified** – A qualified opinion contains an exception, meaning that **the financial statements do not present a true and fair picture**. However, the exception is usually not significant enough to cause the statements as a whole to be misleading to the point that they should not be used. Therefore, it does prevent the auditor from issuing an unqualified opinion. • **Adverse** – An adverse opinion is issued when the exceptions are so material that, in the auditor's judgment, a qualified opinion is not appropriate. This means that the financial statements, taken as a whole, **are not presented in conformity with generally accepted accounting principles**. • **Disclaimer** – A disclaimer of opinion is used when the auditor has not been able to gather enough information on the financial statements to express an opinion.
28.	What are the **two types of controls** within a computer system?	**General controls** relate to the general environment within which transaction processing takes place. They are designed to ensure that the company's control environment is stable and well managed. A stable and well-managed control environment strengthens the effectiveness of the company's application controls. General controls include controls over the development, modification and maintenance of computer programs, segregation of duties, data security, administrative controls, and provision for disaster recovery. **Application controls** are controls that are specific to individual applications. They are designed to prevent, detect, and correct errors in transactions as they flow through the input, processing, and output stages of work.
29.	What is the IIA definition of internal auditing?	"Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes."
30.	What are the two steps of testing an internal control system?	1) **Evaluating the effectiveness of controls** by identifying risks and then assessing existing controls to determine whether or not these controls, when properly executed, will adequately address these risks. 2) **Testing compliance with controls**, or the process of testing to see if the controls are being followed.

31.	What are the two types of engagements performed by internal auditors?	1) Assurance services 2) Consulting services
32.	What are **assurance services**?	Assurance services involve performing an objective examination of evidence to provide an independent opinion or conclusions regarding an entity, an operation, a function, a process, a system, or some other subject. Examples of this type of work include financial audits, performance audits, audit of financial controls, risk management audits, compliance audits, audits of system security, and due diligence engagements. Assurance engagements provide an assessment of the reliability and/or relevance of data and operations in specific areas.
33.	What are **consulting services**?	Consulting services involve providing advice to management. Usually they are performed at the request of the client, and their nature and scope are agreed upon with the client prior to the engagement. They are intended to add value and improve an organization's governance, risk management, and control processes without the internal auditor assuming management responsibility.
34.	What are the three "E"s of an operational, or performance, audit?	1) Efficiency 2) Effectiveness 3) Economy
35.	What is **audit risk**?	Audit risk is the risk that the auditor will come to the wrong conclusion. For example, for an internal auditor there is a risk that after they do all of their testing and analysis they will conclude that the internal control system is working properly, when it is not really working properly. It also is the risk that they will conclude that the internal control system is not working properly when it is in fact working properly.
36.	What is inherent risk?	Inherent risk is natural in the function being audited, assuming that there are no controls. It is the susceptibility to a material mistake that exists "just because."
37.	What is control risk?	Control risk is the risk that an internal control will **not** prevent or detect a material misstatement in a timely manner.
38.	What is detection risk?	Detection risk is the risk that the auditor through audit testing will not detect a material misstatement in an account balance or class of transactions that could result in a material weakness for the company.
39.	What are the four categories of general controls?	• **Organization and operation of the computer facilities**, including provision for the segregation of duties within the data processing function as well as segregation of the data processing function from other operations.

		• **General operating procedures**, including written procedures and manuals. Operating procedures also specify the process to follow in system development and system changes in order to provide reasonable assurance that development of, and changes to, computer programs are authorized, tested and approved prior to the use of the program. • **Equipment and hardware controls**, including controls installed in computers that can identify incorrect data handling or improper operation of the equipment. • **Access controls to equipment and data**, such as controls over physical access to the computer system and over logical access to the data that are adequate to protect the equipment and data files from damage or theft.
40.	What are the three categories of application controls?	1) Input controls 2) Processing controls 3) Output controls
41.	What are **input controls** and what are the **three classifications** of input controls?	Input controls are the controls designed to provide reasonable assurance that data entered into the system has proper authorization, has been converted to machine-sensible form, and has been entered accurately. Input controls can also provide some assurance that data (including data sent over communications lines) has not been lost, suppressed, added or changed in some manner. The three classifications of input controls are: 1. Data observation and recording 2. Data transcription 3. Edit tests
42.	What are processing controls?	Processing controls are controls designed to provide reasonable assurance that processing has occurred properly and that no transactions have been lost or incorrectly added. Processing controls prevent or discourage the improper manipulation of data and ensure satisfactory operation of hardware and software. Processing controls include the physical security of the equipment. At one time, processing controls were limited to the computer room. But with more and more distributed processing taking place, these controls are

		moving outside the room where the computer equipment is located. Processing controls fall into two classifications: 1. Processing controls at the time of data access 2. Controls involving data manipulation later in the processing
43.	What are output controls?	Output can consist of account listings, displays, reports, files, invoices, or disbursement checks, to name just a few of the forms output can take. Output controls are used to provide reasonable assurance that input and processing has resulted in valid output. Controls should be in place to make sure that the output is sent to the right people, that it is accurate and complete, it is sent in a timely manner, and that the proper reports are retained for the appropriate time period. The output of the system is supervised by the **data control group**. Output controls consists of: • Validating processing results • Controls over printed output
44.	What are the seven stages of the program development process?	1) Statement of objectives 2) Investigation and feasibility study 3) Systems analysis 4) Systems design and development 5) Program coding and testing 6) Systems implementation 7) Systems evaluation and maintenance
45.	What are three classifications of controls based on their timing?	1) Preventive controls 2) Detective controls 3) Corrective controls
46.	What are **preventive** and **detective** controls and what are **examples** of each?	A **preventive** control is designed to avoid an unintended event while a **detective** control is designed to discover an unintended event before the ultimate objective has occurred (for example, before financial statements are issued or before a manufacturing process is completed). • Examples of **preventive** controls are segregation of duties, job rotation, enforced vacations, training and competence of personnel, employee screening practices, physical control over assets

		such as dual access controls, requirements for authorizations, and requirements for approvals. • Examples of **detective** controls are reconciliations, internal audits, periodic physical inventory counts, variance analyses to detect ratios that might be out of line, random surprise cash counts, supervisory review and approval of accounting work, management review and approval of account write-offs, and exception reporting and review to identify unusual items.
47.	What are **preventive**, **detective**, and **corrective controls** in an **information system**?	• **Preventive controls** prevent errors and fraud before they occur. Examples of **preventive** controls are segregation of duties, job rotation, training and competence of personnel, dual access controls, authorization, approval, endorsement and cancellation, and preformatted input. • **Detective controls** uncover errors and fraud after they have occurred. Examples of **detective** controls are transmittal documents, batch control totals and other batch transmittal documents, completeness checks, hash totals, batch balancing, check digits, limit checks, and validity checks. The use of a **turnaround document** is also a detective control, because it checks on completeness of input. Completeness-of-processing detective controls include run-to-run totals, reconciliations, use of suspense accounts, and error logs. Correctness of processing detective controls are redundant processing, overflow checks and summary processing. • **Corrective controls** are used to correct errors. Examples of **corrective** controls are discrepancy reports and upstream resubmissions.
48.	What are three ways of testing a computer system?	1) Test data 2) Integrated test facility 3) Parallel simulation
49.	What is a computer virus, a Trojan horse, and a worm?	A **computer virus** is a program that alters the way that a computer operates. Viruses can damage programs, delete files, or reformat the hard disk. A **Trojan horse** is different from a virus in that Trojan horses **do not replicate themselves**, whereas viruses do. A **worm** is a program that replicates itself from system to system without the use of any host file.

50.	What is a computer virus?	A computer virus is a program that alters the way another computer operates. Viruses can damage programs, delete files or reformat the hard disk. Other viruses do not do damage but replicate themselves and present text, video and audio messages. To be considered a virus, a virus must meet two criteria: 1. It must execute itself. A virus often places its own code in the path of the execution of another program. 2. It must replicate itself. A virus can replace other executable files with a copy of the virus-infected file.
51.	What is a **denial of service attack**?	Denial of Service (DOS) attacks are attacks in which a website is accessed repeatedly so that other, legitimate users cannot connect to it.
52.	What is a firewall?	A firewall serves as a barrier between the internal and the external networks and prevents unauthorized access to the internal network. A properly configured firewall makes a computer's ports invisible to port scans. In addition to protecting a computer from incoming probes, a firewall can also prevent backdoor applications, Trojan horses, and other unwanted applications from sending data from the computer.
53.	What are the most serious types of computer crimes?	• Intrusions of the Public Switched Network (the telephone company) • Major computer network intrusions • Network integrity violations • Privacy violations • Industrial espionage • Pirated computer software
54.	What are some defenses against cybercrime?	• Firewalls • Proxy servers • Antisniffers • Switched networks
55.	What is a **proxy server**?	A proxy server is a computer and software that creates a gateway to and from the Internet. The proxy server contains an access control list of approved web sites and handles all web access requests, limiting access to only those sites contained in the access control list. This enables an employer to deny its employees access to sites that are unlikely to have any productive benefits. The proxy server also examines all incoming requests for information and tests them for authenticity. In this way, a proxy server functions as a firewall. The proxy server can also limit the information that is stored on it to

		information that the company can afford to lose. Thus, if this server is broken into, the organization's main servers remain functional.
56.	What is a **sniffer**?	A sniffer is a piece of software that grabs all of the traffic flowing into and out of a computer attached to a network. Sniffers have legitimate as well as illegitimate uses. Intrusion Detection Systems (IDS) use sniffers to match packets against a rule set designed to flag things that appear malicious or strange. Network utilization and monitoring programs often use sniffers to gather data necessary for metrics and analysis.
57.	What is a Trojan horse?	The purpose of a Trojan horse is not to spread like a virus, but to have a particular target - a particular computer - on which to run a program. A strict definition of a Trojan horse is, "any program that does something besides what a person believes it will do." A very important distinction between Trojan horses and viruses is that Trojan horses do not replicate themselves, whereas viruses do.
58.	What is a worm?	A worm is a program that replicates itself from system to system without the use of any host file. The difference between a worm and a virus is that the worm does not require the use of an infected host file, while the virus does require the spreading of an infected host file.
59.	What is **antivirus software**?	Antivirus software, regularly updated with the latest virus definitions, is the best defense against viruses, Trojan horses and worms. Antivirus software recognizes and incapacitates viruses before they can do damage. You must keep your antivirus software up-to-date, however, because new viruses appear constantly.
60.	What is a virus hoax?	A virus hoax is an e-mail telling you that a file on your computer is a virus when it isn't. These e-mails often tell you to look on your system for a file with a specific name and, if you see it, delete it because the file contains a virus that is unrecognizable by your anti-virus program. Everyone will find that file, because it is a system file that is needed for the computer to operate correctly. If you believe this e-mail and delete the file, your computer may malfunction.
61.	What is encryption?	Encryption converts data into a code and then a key is required to convert the code back to data. Unauthorized people can receive the coded information, but without the proper key, cannot read it. Thus, an attacker may be able to see where the information came from and where it went, but not the content.
62.	What are the two methods of software encryption?	• **Secret key system** - the same key is used to encrypt and decrypt messages.

		• **Public/private key system** - uses two different keys (one public, one private) to encrypt and decrypt messages.
63.	What is included in a disaster recovery plan?	1) Which employees will participate in disaster recovery and what their responsibilities will be. 2) What hardware, software, and facilities will be used. 3) The priority of applications that should be processed.
64.	What is a hot site, cold site, and warm site?	A **hot site** is a backup facility that has a computer system similar to the one used regularly and it must be fully operational and immediately available. A **cold site** is a facility where all of the needed equipment can be installed, though the equipment and the necessary telecommunications are not immediately available. A **warm site** has the computer equipment and necessary data and communications links installed, but does not have live data.
65.	What is a **mobile site**?	A mobile site is a disaster recovery site on wheels. It can be a hot site, a warm site, or a cold site. It is usually housed in a trailer and contains the necessary electric power, heat and air conditioning. If it is a warm or a hot site, it also contains the computer equipment; and if it is a hot site, it also contains current data.
66.	What is a **warm site**?	A warm site is in between a hot site and a cold site. It has the computer equipment and necessary data and communications links installed, just as a hot site does. However, it does not have live data. If the warm site is required because of a disaster, current data will need to be restored to it.
67.	What are **agency issues**?	Agency issues arise from the fact that the priorities and concerns of the managers are different from the priorities and concerns of the shareholders. The managers are concerned with what will benefit them personally and lead to increased salary, bonuses, power and prestige. The shareholders' priorities lie with seeing the value of their investment in the corporation increase. The priorities of the shareholders and the priorities of the managers can easily be in conflict with one another, because what benefits the managers may not benefit the owners.
68.	What are **examples** of **incidents** that should be **reported to the board**?	1. **Fraud**. If fraud is suspected, the internal auditor should notify the appropriate level within the organization. This level is always at least one level above the point at which the fraud is suspected. 2. **Violation of any law**, such as environmental regulations.

		3. For a **quality** audit, **inconsistent product quality** that may cause a loss of market share. 4. A situation in which no control failure has occurred, no illegal activity is going on, and no accounting errors have occurred may also be a reportable situation in certain circumstances. For instance, if an auditor discovers that a major supplier is not offering the organization a discount for early payment, when the auditor knows that the supplier is offering discounts to other companies on similar purchases, the goal of efficiency would indicate that he or she report this information to management.
69.	What are **feedback**, **feedforward**, and **preventive controls** in an information system?	• **Feedback controls** produce feedback that can be monitored and evaluated to determine if the system is functioning as it is supposed to. Feedback controls are required in order to produce usable information for end users. With the addition of feedback controls, a system becomes a self-monitoring, self-regulating system. • A **feedforward control** system may be used in addition to the feedback loop to provide better controls. A feedforward system attempts to predict when problems and deviations will occur before they actually occur. It gives people guidance about what problems could occur, so they can plan the necessary changes or actions to prevent the problem or deviation from occurring. Or, if it is not possible to prevent the problem, it will enable the company to minimize the effects of the problem. A budget is a feedforward control. Policies, procedures and rules are also feedforward controls, because they establish the way things are supposed to be done. • A **preventive control** attempts to stop a variance or problem from ever occurring, because it is more cost effective to prevent a problem than it is to fix the problem after it occurs. Maintenance is often given as an example of a preventive control. A preventive control is slightly different from a feedforward control, in that the feedforward control simply tries to identify the potential problem, whereas the preventive control

		attempts to prevent the problem from occurring. Segregation of duties is a preventive control.
70.	What are some examples of **file security control procedures**?	• **Labeling the contents** of discs (CDs, DVDs, external hard drives), tapes, flash drives or memory cards, and any other removable media, both externally and internally as part of the data file. • The **read-only** file designation is used to prevent users from altering or writing over data. • **Database Management Systems** use **lockout procedures** to prevent two applications from updating the same record or data item at the same time. • The **librarian's** function is particularly critical, because documentation, programs and data files are assets of the organization and require protection the same as any other asset would. The data files contain information that is critical to the enterprise, such as accounting records. • Protection of program documentation is critical. Data can be changed within a file by someone who knows how to do it, and technical manuals containing file descriptions are one way to get the necessary information. Only authorized people who have the responsibility to repair data files that may become corrupt should have access to technical manuals.
71.	What are some examples of **hardware controls for networks**?	1. **Checkpoint processing** should be used to enable recovery in case of a system failure. Checkpoint control procedures are performed several times per hour, and during that time, the network system will not accept posting. It stops and backs up all the data and other information needed to restart the system. This **checkpoint** is recorded on separate media. Then, if a hardware failure occurs, the company simply reverts to the last saved copy, and reprocesses only the transactions that were posted after that checkpoint. The effect of this is similar to the **rollback and recovery method**. 2. **Routing verification procedures** protect against transactions routed to the wrong computer network system address. Any transaction transmitted over the network must have a header label identifying its destination. Before sending the transaction, the system verifies that the

		destination is valid and authorized to receive data. After the transaction has been received, the system verifies that the message went to the destination code in the header. 3. **Message acknowledgment procedures** can prevent the loss of part or all of a transaction or message on a network. Messages are given a trailer label, which the receiving destination checks to verify that the complete message was received.
72.	What are some examples of **physical access controls**?	• Have company personnel wear color-coded ID badges with photos. People authorized to enter the computer area are assigned an ID badge of a particular color. • With magnetic ID cards, each employee's entry into and exit from the computer center can be automatically logged. • The door can be kept locked, and a person can enter only if "buzzed" in by the control person, who permits only authorized people to enter. • Keys may be issued to authorized personnel, or combination locks can be used to limit access. If keys are used, they should be keys that cannot be easily duplicated, and locks need to be changed periodically. If a combination lock is used, the combination should be changed periodically. • The location of the computer center should also be in a place where it is protected from natural disasters as much as possible. • The computer center should be equipped with smoke and water detectors, fire suppression devices, burglar alarms and surveillance cameras monitored by security personnel.
73.	What are some **external factors** that give rise to risks?	External factors include economic factors that impact financing availability, environmental factors such as climate change that can lead to changes in operations, reduced availability of raw materials or loss of information systems, regulatory changes such as new reporting standards or new laws, changing customer needs, and technological changes that affect the availability and the use of data.
74.	What are some **internal factors** that give rise to risks?	Internal factors can include decisions that affect operations and the availability of infrastructure, changes in management responsibilities that affect the way controls are implemented, changes in personnel that can

		influence the control consciousness in the organization, employee access to assets that could contribute to misappropriation of assets, and a disruption in information systems processing that could adversely affect the organization's operations.
75.	What are some of the **processes and backups** that should be part of a **recovery plan**?	• Program files, as well as data files, should be backed up regularly. • Copies of all transaction data are stored as a **transaction log** as they are entered into the system. Should the master file be destroyed during processing, computer operations will **roll back** to the most recent backup. • Backups should be stored at a secure, remote location, so that in the event data is destroyed due to a physical disaster, it can be reconstructed. • **Grandparent-parent-child processing** is used because of the risk of losing data before, during or after processing work. Data files from previous periods are retained and if a file is damaged during updating, the previous data files can be used to reconstruct a new current file. Like backup files, these files should also be stored off-premises. • Computers should be on **Uninterruptible Power Supplies (UPS)** to provide some protection in the event of a power failure. Software is available that works in tandem with the UPS to perform an orderly shutdown of the system during that short period of power maintenance that the UPS can give the computer. • **Fault-Tolerant Systems** are systems designed to tolerate faults or errors. They often utilize **redundancy** in hardware design, so that if one system fails, another one will take over.
76.	What are **sources of threats** to information systems?	• Errors can occur in system design. • Errors can occur in input or input manipulation may occur. • Data can be stolen over the Internet. • Data and intellectual property, including trade secrets, can be stolen by employees who carry it out on very small storage media or just email it out. • Unauthorized alterations can be made to programs by programmers adding instructions that divert assets to their own use.

		- Data and programs can be damaged and/or become corrupted, either deliberately or accidentally. - Data can be altered directly in the data file, without recording any transaction that can be detected. - Viruses, Trojan Horses, and worms can infect a system, causing a system crash, stealing data, or damaging data. - Hardware can be stolen. - Physical facilities as well as the data maintained in them can be damaged by natural disasters, illegal activity or sabotage.
77.	What are the **benefits** of a **strong internal control system**?	- Lower external audit costs. - Better control over the assets of the company. - Reliable information for use in decision-making.
78.	What are the **four risk responses**?	1. **Acceptance** – No action is taken to affect the likelihood or impact of the risk. 2. **Avoidance** – Exiting the activity or activities that give risk to the risk, such as exiting a product line or selling a division. 3. **Reduction** – Action is taken to reduce the likelihood or impact of the risk. The amount of the potential loss from each identified risk should be estimated to the extent possible. Some risks are indeterminate and can only be described as large, moderate or small. **4.** **Sharing** – Reducing the risk likelihood or impact by transferring or sharing the risk such as purchasing insurance or forming a joint venture.
79.	What are the **objectives of controls** for an information system?	- Promoting effectiveness and efficiency of operations in order to achieve the company's objectives. - Maintaining the reliability of financial reporting through checking the accuracy and reliability of accounting data. - Assuring compliance with all laws and regulations that the company is subject to, as well as adherence to managerial policies. - Safeguarding assets.
80.	What are the **principles** of **control activities**?	The organization **selects and develops control activities that contribute to mitigating (reducing)**

		risks to the achievement of objectives to acceptable levels. • The organization **selects and develops general control activities over technology** to support the achievement of its objectives. • The organization deploys control activities by **developing policies that establish what is expected and procedures that put the policies into action**. The control activities should be built into business processes and employees' day-to-day activities.
81.	What are the **responsibilities** of the PCAOB?	• Registering public accounting firms that audit public companies. • Establishing auditing and related attestation, quality control, ethics, independence and other standards relating to the preparation of audit reports for issuers. • Conducting inspections of registered public accounting firms, annually for firms that audit more than 100 issuers and every three years for others. • Enforcing compliance with the Act, the rules of the Board, professional standards, and securities laws relating to audit reports and the obligations of accountants for them. • Conducting investigations and disciplinary proceedings and imposing appropriate sanctions. • Management of the operations and staff of the Board.
82.	What are the **stages** in systems development?	1. **Statement of objectives phase**: a clear, written statement of objectives and a risk assessment at this stage can limit the number of changes needed later on and shorten the time required to identify solutions and get approvals later on. 2. **Investigation and feasibility study stage:** the cost-benefit analysis done at this stage is extremely important as a control tool, as this can also reduce changes later on that could be caused by the discovery of unexpected costs. Furthermore, if the project is seriously flawed, it can be rejected at this stage before a major investment is made. 3. **Systems analysis stage**: if the information required by the users is not clear, the new system cannot possibly support the business process,

		leading again to delays in implementation and additional costs to redesign the system. 4. **Systems design and development stage**: before any programming begins, the entire system should be designed and specified in detail. 5. **Program coding and testing stage**: programs are coded according to the specifications developed in the systems design and development stage. Testing is the final check to make sure the system performs as it should. 6. **Systems implementation stage**: an implementation plan is prepared, any data conversion is done, documentation and operating procedures are distributed, and users are trained on the new system. 7. **Systems evaluation and maintenance stage**: processes should be in place for managing changes to the system, along with proper segregation of duties between development and production.
83.	What do **corporate bylaws** specify?	• The requirements for annual meetings of shareholders. • Specifications regarding what constitutes a quorum at a shareholders' meeting and what constitutes a majority vote on the part of shareholders. • Methods of calling special shareholders' meetings. • How directors are to be elected by the shareholders, the number of directors and the length of their terms, specifications for meetings of the board of directors and for what constitutes a quorum at a board meeting. • How officers are to be elected by the board of directors, officer positions and the responsibilities of each officer position. • How the shares of the corporation shall be represented (for example, by certificates) and how shares shall be issued and transferred. • Specifications for payments of dividends. • How the bylaws can be amended. The directors ordinarily have the power to enact, amend or repeal bylaws, but this authority may be reserved to the shareholders. Bylaws must conform to all state laws and specifications in the articles of incorporation.

84.	What is a **feedback loop**?	A **feedback loop** is a part of a control system. It uses feedback to measure differences between the actual output and the desired output. It then adjusts the operation according to those differences. Thus, it self-corrects. A self-monitoring system is sometimes called a **cybernetic system**.
85.	What is a **turnaround document**?	A turnaround document is a document created by a computer, has some additional information has been added to it, and then is returned to become an input document to the computer.
86.	What is **business continuity planning**?	Business continuity planning involves defining the risks facing a company in the event of a disaster, assessing those risks, creating procedures to mitigate those risks, regularly testing those procedures to ensure that they work as expected, and periodically reviewing the procedures to make sure that they are up to date.
87.	What is **collusion**?	**Collusion** occurs when two or more individuals work together to overcome the internal control system and perpetrate a fraud. When two or more people work together, they are able to get around the segregation of duties that may have been set out.
88.	What is dumpster diving?	Dumpster diving is sifting through a company's trash for information that can be used either to break into its computers directly or to assist in social engineering.
89.	What is **effective internal control**?	An effective internal control system provides **reasonable assurance** regarding achievement of an entity's objectives by reducing to an acceptable level the risk of not achieving an entity objective. It requires that each of the **five components** and relevant principles be present and functioning, and that the five components are operating together in an integrated manner. When an internal control system is effective, senior management and the board of directors have reasonable assurance that the organization: • achieves effective and efficient operations or understands the extent to which operations are managed effectively and efficiently, • prepares reports in conformity with applicable rules, regulations, and standards or with the entity's specified reporting objectives, and • complies with applicable laws and regulations.
90.	What is **electronic eavesdropping**?	Electronic eavesdropping can occur if computer users are able to observe transmissions intended for someone else. Therefore, organizations must ensure that information sent over a network is properly protected to maintain the

		confidentiality of company information. Furthermore, the company must ensure that company files cannot be accessed or changed without authorization.
91.	What is included in a disaster recovery plan?	• Which employees will participate in disaster recovery and what their responsibilities will be. One person should be designated in charge of disaster recovery and another should be second in command. • What hardware, software and facilities will be used. • The priority of applications that should be processed. Arrangements for alternative facilities as a disaster recovery site and offsite storage of the company's databases are also part of the disaster recovery plan. An alternative facility might be a different facility owned by the company, or it might be a facility contracted by a different company. The different locations should be a significant distance away from the original processing site.
92.	What is included in the **articles of incorporation** (or **charter**)?	• The **name of the corporation**. • The length of the corporation's life, which is **usually perpetual** (meaning forever). • Its **purpose and the nature** of its business. • The **authorized number of shares** of capital stock that can be issued with a description of the various classes of such stock. • Provision for amending the articles of incorporation. • Whether existing shareholders have the first right to buy new shares. • The names and addresses of the incorporators, whose powers terminate upon filing. • The names and addresses of the members of the initial board of directors, whose powers commence (begin) upon filing. • The name and address of the corporation's registered agent for receiving service of process and other notices.
93.	What is **logical security?**	Logical security consists of access and ability to use the equipment and data. It includes Internet security (firewalls) and virus protection procedures, access controls for users to minimize actions they can perform, authentication processes to verify the identity of users,

		and cryptographic techniques such as encryption of messages and digital signatures.
94.	What is **management override**?	Management override occurs when a manager authorizes staff to not perform an internal control procedure. There could be a good reason for the omission, or the manager could be covering up a misappropriation of assets.
95.	What is meant by **monitoring activities**?	**Management must monitor the entire internal control system**. Monitoring is an activity overseen and/or performed at the management level for the purpose of assessing the operation and effectiveness of existing internal controls. Monitoring assesses the quality of the internal control system's performance over time to determine whether the components of internal control are present and are functioning. Management must also revisit previously identified problems to make sure they have been corrected. Monitoring ensures that the internal control system continues to operate effectively. Systems and procedures change over time, and the way controls are applied need to change in order to continue to be effective. Management needs to determine whether the internal control system is still relevant and whether it is still able to address new risks that may have developed.
96.	What is meant by **reasonable assurance**?	Reasonable assurance means that there is no way to guarantee that the risk management, control, and governance processes are working perfectly. There is always the potential for mistakes, human error, collusion, failure to properly apply a control, or other events that will cause a control to fail. While it is not possible to provide absolute guarantees, the internal audit function can provide reasonable assurance that these areas of the business are operating as they should.
97.	What is **phishing**?	Phishing is a high-tech scam that uses spam e-mail to deceive consumers into disclosing their credit card numbers, bank account information, Social Security numbers, passwords or other sensitive personal information.
98.	What is physical security?	Physical security involves things such as keeping servers and associated peripheral equipment in a separated, secure room with bars on the windows and use of blinds or reflective film on the windows for heat blocking as well as physical protection. It also includes password protection for servers, monitoring of hardware components to prevent them from being removed from the premises, security for offsite backup tapes, and biometrics such as fingerprints, voice verification, and so

		forth to identify a person based on physical or behavioral characteristics. Physical security also involves the locations of wiring that connects the system, backup media, and maintenance of uninterruptible power supplies. An IT member should escort visitors when they enter the computer facilities, and a visitor's log should be kept and reviewed regularly.
99.	What is social engineering?	Social engineering involves calling up company employees and deceiving them into divulging information such as passwords.
100.	What is the **problem** with using a **bottom-up approach** to internal auditing?	When the auditor uses a bottom-up process, he or she often spends more time and effort than is necessary to complete the audit. Furthermore, when an auditor takes a bottom-up approach, the auditor may spend relatively little time testing and evaluating entity-level controls but may rely almost exclusively on detailed tests of controls over individual processes, transactions and applications. Spending more effort than is necessary in lower-risk areas can diminish the effectiveness of the audit because it may prevent a higher-risk area from receiving the audit attention that it should receive.
101.	What is the **Public Company Accounting Oversight Board (PCAOB)**?	Title 1 of the Sarbanes-Oxley Act established the Public Company Accounting Oversight Board (PCAOB), whose mandate is to oversee the auditing of public companies that are subject to the securities laws, protect the interests of investors, and enhance the public's confidence in independent audit reports. As an independent, non-governmental board, the PCAOB is a non-profit corporation that operates under the authority of the SEC, which oversees the approval of its Board's rules, standards, and budget.
102.	What is the **purpose** of a **compliance audit**?	A compliance audit determines the degree to which an organization is operating in an orderly way, conforming effectively and visibly to certain specific requirements of its policies, procedures, standards, or laws, and complying with governmental regulations. Compliance auditing is more objective than other internal auditing applications. To perform a compliance audit, the auditor must first know the applicable policies, procedures, standards, and laws.
103.	What is the **purpose** of an **operational** or **performance audit**?	The purpose of an **operational** or **performance audit** is to examine and evaluate systems of internal control, overall company operations, and the quality of performance in carrying out assigned responsibilities. The overall goal of these engagements is to help the company perform better by utilizing assets more efficiently and effectively and to

		make certain that the activities within the company are helping the company achieve its goals.
104.	What is the **purpose** of the **internal audit charter**?	In general, a charter is a document that outlines the principles, functions, and organization of a corporate body. In the case of the internal audit function, the internal audit charter formally defines the internal audit activity's purpose, authority, and responsibility. It defines the nature of the assurance services and consulting services that the internal audit activity is expected to provide to the organization. The charter should establish that the Chief Audit Executive (CAE) reports to the board of directors. It should give the internal-audit activity authority to access all records, personnel, and physical property that may be relevant to the performance of engagements. The board of directors must approve the internal audit charter.
105.	What is the **responsibility** of the **internal auditor**?	The responsibility of the internal auditor is to **review and appraise policies, procedures, plans, and records for the purpose of informing and advising management**. **The responsibility of internal audit ends with the making of recommendations.** Auditors should have no authority over or responsibility for the activities they audit or the implementation of their recommendations. It is the responsibility of the board or management to implement the recommendations brought to them by the internal auditors.
106.	What is the role of librarians?	Librarians maintain the documentation, programs and data files. They should have no access to equipment. The librarian should restrict access to the data files and programs to authorized personnel at scheduled times. Furthermore, the librarian maintains records of all usage, and those records should be reviewed regularly by the data control group for evidence of unauthorized use.
107.	What is the role of programmers?	Programmers are the individuals who write, test and document the systems. They are able to modify programs, data files and controls, but should not have access to the computers and programs that are in actual use for processing.
108.	What is the role of systems analysts?	Systems analysts are responsible for reviewing the current system to make sure that it is meeting the needs of the organization, and when it is not, they will provide the design specifications to the programmers of the new system. Systems analysts should not do programming, nor should they have access to hardware, software or data files.

109.	What is the role of the **database administrator**?	The database administrator controls access to various files, making program changes, and making source code details available only to those who need to know.
110.	What is the **top-down approach** to internal auditing?	A top-down approach begins at the financial statement level and with the auditor's understanding of the overall risks to internal control over financial reporting. A top-down approach ensures that the controls that address the assessed risk of misstatement to each relevant assertion are tested.
111.	What is user account management?	User account management is the simple process of giving people accounts and passwords. In order for this to be as effective as possible, the company must keep these up-to-date. Inactive accounts should be eliminated and active passwords changed frequently.