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ORGANISATION OF ISLAMIC COOPERATION (OIC)
Department of Computer Science and Engineering (CSE)

SEMESTER FINAL EXAMINATION**SUMMER SEMESTER, 2020-2021****DURATION: 3 Hours****FULL MARKS: 150****HUM 4641: Accounting****Programmable calculators are not allowed. Do not write anything on the question paper.**

Answer all 6 (six) questions. Marks of each question and corresponding CO and PO are written in the right margin with brackets.

1. a) What are the assumptions of CVP Analysis? 5
(CO1)
(PO1)
- b) Northwood Company manufactures basketballs. The company has a ball that sells for \$25. At present, the ball is manufactured in a small plant that relies heavily on direct labor workers. Thus, variable costs are high, totaling \$15 per ball, of which 60% is direct labor cost. 20
(CO2,
CO3)
(PO2)
- Last year, the company sold 30,000 of these balls, with the following results in Table-1.

Table 1: Northwood Company sales and expenses

Sales (30,000 balls)	\$750,000
Variable expenses	<u>450,000</u>
Contribution margin	300,000
Fixed expenses	210,000
Net operating income	<u>\$ 90,000</u>

Required:

- i. Compute the CM ratio, break-even point in balls (use formula method), margin of safety in dollar at last year's sales level.
- ii. Compute the degree of operating leverage.
- iii. Assume that through a more intense effort by the sales staff, the company's sales increase by 10% next year. By what percentage would you expect net operating income to increase? Use the degree of operating leverage to obtain your answer. Verify your answer by preparing a new contribution format income statement showing 10% increase in sales.
- iv. Refer to the original data. The company is discussing the construction of a new, automated manufacturing plant. The new plant would decrease variable costs per ball by 40%, but it would cause fixed costs per year to double. If the new plant is built, prepare a contribution format income statement with the changes.
 - What would be the company's new CM ratio and new break-even point in dollar? (use equation method)
 - If the new plant is built, how many balls will have to be sold next year to earn

the same net operating income, \$90,000, as last year? (use equation method)

- Compute the new Margin of Safety in dollar and percentage. If you were a member of top management, would you have been in favor of constructing the new plant? Explain.

2. a) Describe Per Unit Variable Cost. Is per unit variable cost always remains same? Give your explanation with graphical example. 5
(CO1)
(PO1)
- b) From the information given below in Table-2, prepare a Cost Sheet for the period ended on 31st March, 2018. 20
(CO2,
CO3)
(PO1)

Table 2: Stock

Opening stock of raw material	12,500
Purchases of raw material	1,36,000
Closing stock of raw material	8,500
Direct wages	54,000
Direct expenses	12,000
Factory overheads	100% of direct wages
Office and administrative overheads	20% of works cost
Selling and distribution overheads	26,000
Cost of opening stock of finished goods	12,000
Cost of Closing stock of finished goods	15,000
Profit on Selling Price	20%

3. a) "All future costs are relevant in decision making." Do you agree? Why? 5
(CO1)
(PO1)
- b) Gemini Products manufactures 30,000 units of part S-6 each year for use on its production line. At this level of activity, the cost per unit for part S-6 is as follows in Table-3: 20
(CO2,
CO3)
(PO2)

Table 3: Gemini Products cost per unit of part S-6

Direct materials	\$ 4.00
Direct labor	10.00
Variable manufacturing overhead	3.00
Fixed manufacturing overhead	8.00
Total cost per part	<u>\$25.00</u>

An outside supplier has offered to sell 30,000 units of part S-6 each year to Gemini Products for \$21 per part. If Gemini Products accepts this offer, the facilities now being used to manufacture part S-6 could be rented to another company at an annual rental of \$80,000. The \$80,000 rental value of the space being used to produce part S-6 is an opportunity cost of continuing to produce the part internally. However, Gemini Products has determined that two-thirds of the fixed manufacturing overhead being applied to part S-6 would continue even if part S-6 were purchased from the outside supplier.

Required:

Should the outside supplier's offer be accepted? Show all computations.

4. a) What is Flexible Budget? Explain the two variances that are derived in the flexible budget performance report? 5
(CO1)
(PO1)
- b) Lavage Rapide is a Canadian company that owns and operates a large automatic carwash facility near Montreal. The following Table-4 provides data concerning the company's costs: 20
(CO2,
CO3)
(PO2)

Table 4: Lavage Rapide costs

	Fixed Cost per Month	Cost per Car Washed
Cleaning supplies		\$0.80
Electricity	\$1,200	\$0.15
Maintenance		\$0.20
Wages and salaries	\$5,000	\$0.30
Depreciation	\$6,000	
Rent	\$8,000	
Administrative expenses	\$4,000	\$0.10

For example, electricity costs are \$1,200 per month plus \$0.15 per car washed. The company expects to wash 9,000 cars in August and to collect an average of \$4.90 per car washed.

Required:

- Prepare the company's Planning budget
- The company actually washed 8,800 cars in August. Prepare the company's flexible budget for August.
- Prepare the company's Flexible Budget Performance Report. The actual operating results for August appear below in Table-5:

Table 5: Lavage Rapide Income Statement For the Month Ended August 31

Actual cars washed	8,800
Revenue	<u>\$43,080</u>
<u>Expenses:</u>	
Cleaning supplies	7,560
Electricity	2,670
Maintenance	2,260
Wages and salaries	8,500
Depreciation	6,000
Rent	8,000
Administrative expenses	<u>4,950</u>
Total expense	<u>39,940</u>
Net operating income	<u>\$ 3,140</u>

5. a) Using the following Table-6 data from the comparative balance sheet of Rodenbeck Company, prepare a schedule showing the **Horizontal Analysis** and **Vertical Analysis**.

8
(CO2,
CO3)
(PO1)

Table 6:

	December 31, 2018	December 31, 2017
Accounts receivable	\$ 520,000	\$ 400,000
Inventory	\$ 840,000	\$ 600,000
Total assets	\$ 3,000,000	\$2,500,000

- b) Apple Corporation's comparative balance sheets are presented below in Table-7:

17
(CO2,
CO3)
(PO1)

Table 7: APPLE CORPORATION Balance Sheets December 31

	2018	2017
Cash	\$ 4300	\$ 3700
Accounts receivable	21200	23400
Inventory	10000	7000
Land	20000	26000
Building	70000	70000
Accumulated depreciation	(15000)	(10000)
Total	<u>\$110500</u>	<u>\$120100</u>
Accounts payable	\$ 12370	\$ 31100
Common stock	75000	69000
Retained earnings	23130	20000
Total	<u>\$110500</u>	<u>\$120100</u>

Apple's 2018 **income statement** included Net Sales of \$100,000, Cost of Goods Sold of \$60,000, Cash Dividends \$20,000 and Net Income of \$15,000.

Required:

Compute the following ratios for **2018**.

- i. Current ratio.
- ii. Acid-test ratio.
- iii. Receivables Turnover.
- iv. Inventory turnover.
- v. Profit margin.
- vi. Asset turnover.
- vii. Return on assets.
- viii. Return on common stockholder's equity.
- ix. Debt to total assets ratio.
- x. Payout Ratio.

6. a) "Pacioli described a unique system to ensure that financial information was recorded efficiently and accurately"-Explain.

5
(CO1)
(PO1)

- b) Josie Micheals is a licensed CPA. During the first month of operations of her business, the following events and transactions occurred. 20
- May 1:** Josie invested \$25,000 cash in her business. (CO2,
- May 2:** Hired a secretary-receptionist at a salary of \$2,000 per month. CO3)
- May 3:** Purchased \$2,500 of supplies on account from Barry Supply Company. (PO1)
- May 7:** Paid office rent of \$900 cash for the month.
- May 11:** Completed a tax assignment and billed client \$2,100 for services provided.
- May 12:** Received \$3,500 advance on a management consulting engagement.
- May 17:** Received cash of \$1,200 for services completed for Max Company.
- May 31:** Paid secretary-receptionist \$2,000 salary for the month.
- May 31:** Paid 40% of balance due Barry Supply Company.

Josie uses the following chart of accounts: No. 101 Cash, No. 112 Accounts Receivable, No. 126 Supplies, No. 201 Accounts Payable, No. 205 Unearned Revenue, No. 301 Josie Micheals, Capital; No. 400 Service Revenue, No. 726 Salaries Expense, and No. 729 Rent Expense.

Required:

- i. Journalize the transactions.
- ii. Post to the ledger accounts.
- iii. Prepare a trial balance on May 31, 2018.