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**PRESIDENCY UNIVERSITY**

**BENGALURU**

**SCHOOL OF COMMERCE**

**MAKE-UP EXAMINATION – SEP 2023**

**Course Code:** MAH 105  
**Course Name:** International Accounting and Finance  
**Program :** B.Com Honors

**Date:** 01-OCT-2023  
**Time:** 9.30AM - 12.30PM  
**Max Marks:** 100  
**Weightage:** 50%

**Instructions:**

- (i) *Read the question carefully and answer all the questions*

**Part A [Memory Recall Questions]**

**Answer all Questions. Each Question carries 2 marks (10Qx2M=20)**

1. Atlas Airlines has reported the following quarter 1 (Q1) results for each of the past four years:

(\$ million)	Year 1	Year 2	Year 3	Year 4
Sales revenue	\$2,012	\$2,778	\$3,065	\$3,205
Operating expenses	\$795	\$860	\$870	\$945
Net income	\$95	\$98.20	\$104	\$101.80

Under horizontal analysis, changes in net income for Q1 for Years 2, 3, and 4, respectively, will be shown as:

2. Chicago Trading Company reports the following results for the past four years (all amounts in millions):

	Year 1	Year 2	Year 3	Year 4
Sales revenue	\$104	\$109	\$116	\$119
Net income	\$80	\$84	\$86	\$88

If Year 1 is the base year, what is the percentage increase in sales revenue from Year 1 to Year 4 (round your answer to the nearest whole percentage)?

3. Financial statements from Hank's Hardware indicate the company have the following balances:

Net Sales Revenue	\$452,750
Gross Profit	\$256,500
Net Income	\$161,250
Inventory Balance (Beginning)	\$190,450
Inventory Balance (Ending)	\$187,125
Total Assets (Ending)	\$403,500

What is the company's inventory turnover?

4. Ottoman Manufacturing Company reported net sales (all credit) of \$120,000 and \$140,000 for 20x3 and 20x4, respectively, and net income of \$24,000 and \$32,000 for 20x3 and 20x4, respectively. Ottoman's 20x3 and 20x4 balance sheets appear here:

	20x3	20x4
<b>Current Assets</b>		
Cash	\$ 16,000	\$ 15,000
Accounts Receivable, net	20,000	19,000
Inventory	<u>30,000</u>	<u>28,000</u>
Total Current Assets	66,000	62,000
Plant & Equipment, net	<u>60,000</u>	<u>40,000</u>
Total Assets	<u>126,000</u>	<u>102,000</u>
<b>Current Liabilities</b>		
	20,000	30,000
Noncurrent Liabilities	<u>60,000</u>	<u>40,000</u>
Total Liabilities	\$ 80,000	\$ 70,000
<b>Stockholders' Equity</b>		
Common Stock	2,000	2,000
Additional Paid-In Capital	4,000	4,000
Retained Earnings	<u>40,000</u>	<u>26,000</u>
Total Stockholders' Equity	<u>46,000</u>	<u>32,000</u>
Total Liabilities and Stockholders' Equity	<u>\$ 126,000</u>	<u>\$ 102,000</u>

Calculate the average collection period for 20x4, rounding to two decimal places.

5. M&M has provided the following comparative income statements and supplemental

	20x2	20x3	20x4
Net sales	\$120,000	\$132,000	\$136,000
Cost of goods sold	62,000	68,000	72,000
Gross margin	58,000	64,000	64,000
Selling and administrative expenses	24,000	26,000	36,000
Depreciation	4,000	6,000	8,000
Operating profit	30,000	32,000	20,000
Income taxes	10,000	8,000	5,000
Net income	<u>\$ 20,000</u>	<u>\$ 24,000</u>	<u>\$ 15,000</u>
Common shares outstanding	10,000	9,000	8,400
Dividends paid on common shares	\$14,000	\$12,780	\$12,180
Dividends per preferred share	\$0.75	\$0.75	\$0.75
Number of preferred shares	1,200	1,200	1,200
Market price per share	\$12	\$16	\$10

information:

Calculate the payout ratio for 20x4, rounding to two decimal places.

6. For the most recent fiscal period, Oakland Inc. paid a regular quarterly dividend of \$0.20 per share and had earnings of \$3.20 per share. The market price of Oakland stock at the end of the period was \$40.00 per share. Oakland's dividend yield was:
7. Hudson Co. is currently producing 1,000 units of a necessary component part by incurring \$54,400 in direct materials, \$24,000 in direct labor, \$14,400 in variable overhead, and \$16,000 in fixed overhead. Hudson could avoid \$9,600 of fixed overhead if the component is purchased externally. Hudson wishes to minimize costs and would prefer to purchase the component. What is the maximum external price that Hudson should pay to acquire 1,000 units of the component?
8. You are planning to open a local restaurant, and you are considering whether to buy or rent your facility. If you rent the facility, you will pay \$4,500 per month in rent plus approximately \$1,300 in utilities per month. You will also be required to purchase renters' insurance, which will cost you \$550 per month. All maintenance fees on the building and landscaping, however, will be provided by the property owner. If you buy the facility, your mortgage will be \$2,800 per month, and utilities will be \$1,800 per month. Your property insurance will be \$800 per month, and your expected maintenance costs are \$1,800 per month. What is the relevant cost of purchasing the building?
9. Wilkinson Company sells its single product for \$30 per unit. The contribution margin ratio is 45% and Wilkinson has fixed costs of \$10,000 per month. If 3,000 units are sold in the current month, Wilkinson's operating profit would be:
10. For the year just ended, Silverstone Company's sales revenue was \$450,000. Silverstone's fixed costs were \$120,000 and its variable costs amounted to \$270,000. For the current year sales are forecasted at \$500,000. If the fixed costs change to \$150,000, Silverstone's profits this year will be:

### **Part B [Thought Provoking Questions]**

**Answer all Questions. Each Question carries 10 marks.**

**(4Qx10M=40)**

11.
  - A) Redford's capital structure on December 31, 20X1 was as follows:
    - 100,000 shares of common stock issued and outstanding.
    - 20,000 of nonconvertible preferred shares issued and outstanding.
 On July 1, 20X2, Redford paid a cash dividend of \$2 per share on its preferred stock and on the same date issued a 10% stock dividend on its common stock. Net income for the year ending December 31, 20X2 was \$780,000. Calculate Redford's basic EPS.
  - B) Redford's capital structure on December 31, 20X1 was as follows:
    - 100,000 shares of common stock issued and outstanding.
    - 20,000 of nonconvertible preferred shares issued and outstanding.
 On July 1, 20X2, Redford paid a cash dividend of \$2 per share on its preferred stock, but on the same date, Redford issued and sold 10,000 new shares. Net income for the year ending December 31, 20X2 was \$780,000. Calculate Redford's basic EPS.

12. Elaborate the Limitations and Benefits of Ratio Analysis.
13. Elaborate the Limitations and Benefits of Payback Method of Capital Budgeting.
14. A company's sales mix consists of a composite unit of 25 units of Product A & 5 units Product B, and 20 units of Product C. The company's fixed costs are \$50,000. Selling prices and variable costs are as follows:

	Product A	Product B	Product C
Selling price/unit	\$10.00	\$6.00	\$8.00
Variable cost/unit	<u>5.00</u>	<u>4.00</u>	<u>4.50</u>
Contribution margin/unit	\$5.00	\$2.00	\$3.50
Number of Units	25	5	20

How many units in total and how many units of each product need to be sold to break even?

### Part C [Problem Solving Questions]

**Answer all the Questions.**

**(2Qx20M=40)**

15. A) X Limited is considering purchasing of new plant worth \$8,000,000. The expected net cash flows after taxes and before depreciation are as follows:

Year	Net Cash Flows (\$)
1	1,400,000
2	1,400,000
3	1,400,000
4	1,400,000
5	1,400,000
6	1,600,000
7	2,000,000
8	3,000,000
9	2,000,000
10	800,000

The rate of cost of capital is 10%.

You are required to CALCULATE:

- (i) Pay-back period
- (ii) Net present value at 10 discount factor
- (iii) Internal rate of return with the help of 10% and 15% discount factor

B). Y Company is considering a new product line to supplement its range of products. It is anticipated that the new product line will involve cash investments of \$700,000 at time 0 and \$1,000,000 in year 1. After-tax cash inflows of \$250,000 are expected in year 2, \$300,000 in year 3, \$350,000 in year 4 and \$400,000 each year thereafter through year 10. Although the product line might be viable even after year 10, the company prefers to be conservative and end all calculations at that time.

- (a) If the required rate of return is 15 per cent, COMPUTE net present value of the project. Is it acceptable?

- (b) ANALYSE what would be the case if the required rate of return were 10 percent?
- (c) CALCULATE its internal rate of return.
- (d) COMPUTE the project's payback period.

16. **A)** N Ltd. manufactures automobiles accessories and parts. The following are the total cost of processing 200,000 units:

- Direct materials cost \$375 per unit
- Direct labour cost \$80 per unit
- Variable factory overhead \$16 per unit
- Fixed factory overhead \$500 lakhs

The purchase price of the component is \$485. The fixed overhead would continue to be incurred even when the component is bought from outside.

(i) Should the part be made or bought from outside considering that the present facility when released following a buying decision would remain idle?

(ii) In case the released capacity can be rented out to another manufacturer for \$3,200,000 having good demand. What should be the decision?

**B)** ABC Limited produces and sells two product- X and Y. The product is highly demanded in the market. Following information relating to both the products are given as under:

	Per Unit (\$)	
	X	Y
Direct Materials	140	180
Direct Wages	60	100
Variable Overheads (\$5 per machine hour)	20	40
Selling price	300	450

The company is facing scarcity of machine hours for working. The availability of machine hours is limited to 60,000 hrs in a month. At present, the monthly demand of product X and product Y is 8,000 units and 6,000 units respectively. The fixed expenses of the company are \$225,000 per month. You are required to, **DETERMINE** the product mix that generates maximum profit to the company in the given situation and **CALCULATE** the profit of the company.

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