## श्रूम वर विज्लाप

MBA: 3309

## **Bangladesh Open University**

MBA Program Semester: 221: Level: 3rd

Course Title: Management Accounting Submit by February 07, 2025

## Instructions for Assignment Submission

- 1. Answer all questions in your own handwriting on A4 size white paper.
- 2. Fill-in the cover page (see page#6 of Academic Calendar) of your assignment with care.
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#### **Questions**

- 1. Why is management accounting required to take on an outward-looking role of contributing to business strategy by identifying, measuring and communicating financial information about a wider business community?
- 2. Describe, and explain each stage of, the cycle of profit planning and control.
- 3. What are the component costs of the total cost of production? Explain.
- 4. Your best friend wants to start his own company. He has already developed several new computer games and wants to produce and market them himself rather than selling his games to GameWorks, Inc. He has no business background since he spends his days playing games and wants to know what he needs to know to be able to manage the company himself. "It can't be too hard," he states. What should you tell him?
- 5. Consider the following partially completed schedules of cost of goods manufactured. Compute the missing amounts.

	Banner,	Larry's	Sports Gear
	Inc.	Bakery	
Beginning Work-in-Process Inventory	\$ (a)	\$ 40,800	\$ 2,200
Direct Materials Used	14,400	35,900	(g)
Direct Labor	10,300	20,100	1,900
Manufacturing Overhead	<i>(b)</i>	10,000	900
Total Manufacturing Costs Incurred during	45,200	(d)	(h)
the Year			
Total Manufacturing Costs to Account for	55,400	(e)	8,300
Ending Work-in-Process Inventory	(c)	(25,500)	(2,600)
Cost of Goods Manufactured	\$ 50,500	\$ <i>(f)</i>	\$ (i)

# श्रून वर विज्लाप

MBA: 3309

## **Bangladesh Open University**

MBA Program
Semester: 221; Level: 3rd

**Course Title: Management Accounting** 

Submit by March 21, 2025

(The assignment is to be presented in own handwriting on A4 size white pages)

#### Questions

1. Paula Corporation is trying to predict its manufacturing overhead costs for the upcoming year; they are debating the use of the high-low method versus the use of regression analysis. They have gathered information about their manufacturing overhead costs in each of the past six months. A table containing their cost data and the associated machine hours in each month (the cost driver) follows.

Month	Manufacturing overhead costs	Number of machine hours
April	\$.17,000	14,250
May	\$.14,500	12,010
June	\$.13,250	10,280
July	\$.15,000	11,910
August	\$.13,500	11,080
September	\$.14,500	11,670

The company performed a regression analysis using the above data and had the following results.

#### Required:

- (a) What is the cost equation if the high-low method is used to estimate costs?
- (b) Using the high-low method, predict total manufacturing overhead costs if Paula Corporation uses 12,000 hours.
- (c) What is the cost equation if regression analysis is used to estimate costs?
- (d) Using the results from the regression analysis provided, predict total manufacturing overhead costs if Paula Corporation uses 12,000 hours.
- 2. (a) What are the principal differences between the economist's and the accountant's break-even models?
  - (b) An MBA student defines contribution margin as the amount of profit available to cover operating expenses. Is this definition acceptable? Discuss.
  - (c) A client has recently leased manufacturing facilities for production of a new product. Based on studies made by his staff, the following data have been made available to you: Estimated costs:

	<u>Amount</u>	<u>Per unit</u>
Material	\$ 96,000	\$ 4.00
Direct Labor	\$ 14,400	\$ 0.60
Overhead	\$ 24,000	\$ 1.00
Administrative expenses	\$ 28,800	\$ 1.20
	1,63,200	6.80

Selling expenses are expected to be 15% of sales and profit \$ 1.02 per unit.

#### Required:

- (i) The selling price per unit.
- (ii) A profit and loss statement for the year.
- (iii) A Break-even point expressed in dollar and in units, assuming that overhead and administrative expenses are fixed but that other costs are fully variable.

- 3. (a) What is decentralization? What are its advantages and disadvantages?
  - (b) The most recent monthly income statement for Reston Company is given below:

## Reston Company Income Statement For the Month Ended May 31, 2014

Sales	\$ 900,000	100%
Less Variable expenses	408,000	45.3%
Contribution margin	492,000	54.7%
Less fixed expenses	465,000	51.7%
Net Income	27,000	3.0%

Management is disappointed with the company's performance and is wondering what can be done to improve profits. By examining sales and cost records, you have determined the following:

- (a) The company is divided into two sales territories-Central and Eastern. The Central territory recorded \$4,00,000 in sales and \$2,08,000 in variable expenses during May. The remaining sales and variable expenses were recorded in the Eastern territory. Fixed expenses of \$1,60,000 and \$1,30,000 are traceable to the Central and Eastern Territories respectively. The rest of the fixed expenses are common to two territories.
- (b) The company sells two products-Awls and Pows. Sales of Awls and Pows totaled \$1,00,000 and \$3,00,000 respectively, in the central Territory during May. Variable expenses are 25% of the selling price for Awls and 61% for Pows. Cost records show that \$60,000 of the Central Territory's fixed expenses are traceable to Awls and \$54,000 to Pows, with the remainder common to the two products.

#### Required:

Prepare a segment income statement

- 4. (a) Briefly explain the meaning of the variable overhead efficiency variance and the variable overhead spending variance.
  - (b) How is a budgeted fixed overhead cost rate calculated?
  - (c) Nixon's Diner bakes pies in large batches. One batch of pies has the following standard costs and amounts:

Standard quantity of sugar (pounds)	115
Standard cost per pound of sugar	& 2.10
Standard direct labor hours per batch of pies	1.5
Standard direct labor cost per hour	& 19.00

Nixon's Diner baked 425 batches of pies in the most recent month. Actual costs and usage levels were as follows:

Actual pounds of sugar purchased and used per batch of pies	122
Actual cost per pound of sugar	& 2.20
Actual direct labor hours per batch of pies	2
Actual direct labor cost per hour	& 17.75

#### Required:

- (a) Calculate the material price variance.
- (b) Calculate the material quantity variance.
- (c) Calculate the labor rate variance.
- (d) Calculate the labor efficiency variance.

## श्रून वर विजलप्र

MBA: 3309

## **Bangladesh Open University**

MBA Program Semester: 211; Level: 3rd

**Course Title: Management Accounting** 

**Submit by May 02, 2025** 

(The assignment is to be presented in own handwriting on A4 size white pages)

### Questions

1. (a) "The budget is an aid to management not substitute for management". Comment.

(b) Kinsman, a retailer provides the following data for 2012 and 2013.

	December	December
	31, 2012	31, 2013
Cash	\$ 200,000	\$ 78,000
Trade accounts receivable	84,000	140,000
Merchandise inventory	150,000	(98,000)
Accounts payable -	(95,000)	
merchandise		

Budgeted sales for 2013 are \$1,200.000; sales for 2012 were \$1,100,000. Cash sales average 20 percent of total sales each year. Cost of goods sold for 2013 is estimated to be \$840,000. Budgeted 2013 variable operating expenses are \$120,000. They vary in proportion to sales and are paid 50 percent in the year incurred and 50 percent the following year. Unpaid variable expenses are not included in accounts payable above.

Fixed operating expenses, including \$35,000 depreciation and \$5,000 uncollectible accounts expense, total \$100,000 per year. Such expenses involving cash payments are paid 80 percent in the year incurred and 20 percent the following year. Unpaid fixed expenses are not included in accounts payable above.

#### Required:

Prepare a cash budge for 2013 with supporting computations on cash collections from credit sales and cash disbursements for purchases of merchandise and operating expenses.

- 2. (a) What are the three major sections on a statement of cash flows, and what are the general rules that determine the transactions that should be included in each section?
  - (b) Presented below are the comparative balance sheets for Canca Works Company as of December, 31.

# Canca Works Company Comparative Balance Sheets

#### December 31

December	, 1	
Assets	2021	2020
Cash	\$38,000	\$45,000
Accounts receivable	49,500	52,000
Inventory	153,450	142,000
Prepaid expenses	15,780	21,000
Land	100,000	130,000
Equipment	228,000	155,000
Accumulated depreciation-equipment	(45,000)	(35,000)
Building	200,000	200,000
Accumulated depreciation-building	(60,000)	(40,000)
	\$ <u>679,730</u>	\$ <u>670,000</u>
Liabilities and Stockholders' Equity		
Accounts payable	\$35,730	\$40,000
Bonds payable	250,000	300,000
Common stock, \$1 par	200,000	150,000
Retained earnings	<u>194,000</u>	80,000
	<u>\$679,730</u>	<u>\$670,000</u>

#### Additional information:

- (i) Operating expenses include depreciation expense of \$42,000.
- (ii) Land was sold for cash at book value.
- (iii) Cash dividends of \$24,000 were paid.
- (iv) Net income for 2013 was \$38,000.
- (v) Equipment was purchased for \$95,000 cash. In addition, equipment costing \$22,000 with a book value of \$10,000 was sold for \$8,100 cash.
- (vi) Bonds were converted at face value by issuing 50,000 shares of \$1 par value common stock.
- (viii) Net sales for 2013 totaled \$420,000.

#### Required:

- (a) Prepare a statement of cash flows for the year ended December 31, 2021, using the indirect method.
- (b) Compute free cash flow for 2021.

# श्रूम व्यव विजलप्र

MBA: 3310

## Bangladesh Open University MBA Program

Semester: 221; Level: 3rd

Course Title: Marketing Management Submit by February 07, 2025

## Instructions for Assignment Submission

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### Questions

- 1. (a) You are preparing for a presentation at your university, and you realize that your laptop bag is old and torn. To ensure your laptop and documents are safe during your commute, you have decided to buy a new bag. After visiting some nearby stores, you finally purchase a durable laptop bag for Tk. 1,500 that fits your budget and requirements. Based on this scenario, explain the stages of need, want, and demand with theoretical justification. Provide another example to illustrate these three concepts.
  - (b) Explain the different types of marketing channels a company can use and highlight their importance.
- 2. (a) During the summer, there is a noticeable increase in the sale of ice cream and cold beverages as people seek refreshing treats to combat the heat. As the cooler months approach, the demand for these items decreases. Identify the type of demand observed here & give another example of it.
  - (b) Define the service marketing elements—people, process, and physical evidence—using examples. Explain product support services that can be provided to address customers' concerns. Share real-life examples.
- 3. (a) What challenges do market challengers face when competing with market leaders, and what strategies can they implement to effectively increase their market share and boost sales?
  - (b) Which brand element choice criteria should a brand manager prioritize to build a compelling and enduring brand identity?
  - (c) What are the benefits of using integrated marketing channels, and how do they contribute to enhancing product availability?

MBA 221/NS/MBA:3310 Page # I



MBA: 3310

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

**Course Title: Marketing Management** 

Submit by March 21, 2025

(The assignment is to be presented in own handwriting on A4 size white pages)

### **Questions**

- 1. (a) Companies often encounter a gap between their desired sales and actual sales performance. When is this gap relatively small, what growth strategy would be the most appropriate to bridge it? Justify your answer with relevant examples.
  - (b) How many responses may a marketer seek from a prospect? Explain each with practical examples.
  - (c) Discuss the contents of a marketing plan that a marketing manager should follow.
- 2. (a) Assume Unilever Bangladesh Ltd. has launched a dry shampoo that can absorb the dirt, oil, and grease of a user's scalp without washing it. How many promotional sales tools can the company apply to increase its sales? Explain.
  - (b) What are the differences between rational, moral, and emotional appeals in designing messages for promotion, and how do they influence consumer behavior?
- 3. (a) Assume that Partex Beverage Ltd. will introduce a healthy drink- Honey Seeds Bottle- in the market where it already has popularity for its MUM mineral drinking water. As a marketing manager of Partex Beverage Ltd., you have been assigned to do brand equity for this new healthy drink. How will you do the brand equity? Which branding strategy will you apply here?
  - (b) What strategies can businesses use to successfully extend their brand into new markets or product categories?

MBA 221/NS/MBA:3310 Page # 2



MBA: 3310

## **Bangladesh Open University**

MBA Program
Semester: 221: Level: 3rd

**Course Title: Marketing Management** 

**Submit by May 02, 2025** 

(The assignment is to be presented in own handwriting on A4 size white pages)

### Questions

- 1. (a) Assume, you along with your two friends want to do a small business on customized tech accessories. You have planned to sell personalized phone cases, laptop skins, or keyboard decals with unique designs, memes, or campus-specific themes to the students of your campus. There are 3 Porter's generic strategies being used for starting a business. Which combination of business strategies would you like to follow here? What type of media do you think will be the best for this business? Evaluate logically.
  - (b) What are the key tasks and responsibilities of a marketing manager in developing and implementing effective marketing strategies? Discuss.
- 2. (a) How does a company effectively practice customer relationship management (CRM) strategies to enhance customer satisfaction and loyalty?
  - (b) What are the key differences between the two types of marketing environments and how can businesses adapt to each?
- 3. Read the following case study and give answers to the following questions:

LuminaTech, An IT company, has newly launched the 'AuraLite Smart Lamp', an intelligent desk lamp designed to meet the needs of students and professionals. This innovative lamp adapts its brightness and color temperature based on the time of day and user activity, ensuring an optimal environment for focus and productivity. It also features an integrated focus timer and syncs with a dedicated app that provides study/work analytics and personalized productivity tips. When it comes to pricing, LuminaTech wants to position the AuraLite as a premium yet accessible product. It believes that pricing should reflect the lamp's advanced technology, innovative features, and sleek design while remaining competitive within the smart device market. This ensures that it will be appealing to both budget-conscious students and professionals seeking high-quality workspace solutions.

#### Required:

- (a) Identify this product's life cycle stage and based on that discuss marketing strategies that need to be applied.
- (b) How many methods can be applied to set up the budget for manufacturing this AuraLite Smart Lamp?
- (c) How can Lumina Tech apply the 3C's pricing model to develop an effective pricing strategy?

MBA 221/NS/MBA:3310 Page #3

## श्रून वर विजलप्र

**MBA 3311** 

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

Course Title: Strategic Management Submit by February 07, 2025

## Instructions for Assignment Submission

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### **Questions**

- 1. (a) What do you understand by strategy? How is strategy different from policy? Explain.
  - (b) Choose a business company in your locality with which you are familiar. Visualize its activities and examine its strategic management process.
- 2. (a) What is vision and why is it important to an organization? How can vision and mission be communicated to the stakeholders? Discuss.
  - (b) Why should objective be SMART? Distinguish between long-term and annual objectives.
  - (c) Collect some business objectives of a company and using the knowledge that you have gained through the lesson whether the objectives are really SMART?
- 3. (a) Describe the components of macro environment that have influence on the strategic analysis of an organization.
  - (b) Why is the understanding of environmental influences on business organization important?
  - (c) Suppose you are responsible in your company for dealing with the environmental influences. Make a list of the approaches that you would adopt for dealing with the external influences on your business enterprise.

Dr. SA/MBA/3311 221 Page # 1

# श्रूल वर विजलप्र

**MBA 3311** 

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

**Course Title: Strategic Management** 

Submit by March 21, 2025

(The assignment is to be presented in own handwriting on A4 size white pages)

### Questions

- 1. (a) What is industry? Why does an organization analyze the industry with which it belongs?
  - (b) If your company is facing severe competition from substitute products, what action would you adopt to retaliate aggressively against new entrants in the industry.
  - (c) How can you prepare an industry analysis plan? Discuss.
- 2. (a) Describe in brief the techniques of company situation analysis.
  - (b) What is SWOT analysis? What steps need to be followed in SWOT analysis? Discuss.
  - (c) Prepare a format of SWOT analysis in the context of a hospital.
- 3. (a) What is competitive advantage? How can competitive advantage be sustained?
  - (b) What competitive advantage does Bangladesh Open University possess? Why do you think it a competitive advantage? Justify.
  - (c) Describe the risks associated with a focused strategy.

Dr. SA/MBA/3311 221 Page # 2

# श्रून वर विजलप्र

**MBA 3311** 

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

**Course Title: Strategic Management** 

**Submit by May 02, 2025** 

(The assignment is to be presented in own handwriting on A4 size white pages)

### **Questions**

- 1. (a) What is strategic alliance? Why does an organization go for strategic alliance? When the strategic alliance fails? Discuss.
  - (b) A few years ago, Standard Chartered Bank purchased the operations of the Grindlays Bank in the South Asia and South-East Asia. Was this merger or acquisition? Give your arguments.
  - (c) Compare and contrast between first-mover and late-mover strategies.
- 2. (a) What do you mean by emerging industry? Discuss the strategy making challenges in the emerging industry.
  - (b) In Bangladesh, jute industry is aid to be a declining industry. Why? Explain logically.
  - (c) Basundhara is the market leader in the production and marketing of tissue paper. What are the things that make them market leader. Explain.
- 3. (a) Define related and unrelated diversification. Describe the situations when a company thinks to go for unrelated diversification strategy.
  - (b) Discuss the various techniques for effective analysis of diversified companies.

Dr. SA/MBA/3311\_221 Page # 3

## श्रूल वर विजलप्र

MBA 3314

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

Course Title: Managerial Finance Submit by February 07, 2025

## Instructions for Assignment Submission

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### **Questions**

- 1. Describe the positions where you can develop your career after learning the concept on Managerial Finance.
- 2. What three ratios of profitability are found on a common-size income statement?
- 3. What three areas of analysis are combined in the modified DuPont formula? Explain how the DuPont system of analysis is used to dissect the firm's results and isolate their causes.
- 4. What three components of cash flow may exist for a given project? How can expansion decisions be treated as replacement decisions? Explain.
- 5. How is the book value of an asset calculated? What are the two key forms of taxable income?
- 6. Bryson Sciences is planning to purchase a high-powered microscopy machine for \$55,000 and incur an additional \$7,500 in installation expenses. It is replacing similar microscopy equipment that can be sold to net \$35,000, resulting in taxes from a gain on the sale of \$11,250. Because of this transaction, current assets will increase by \$6,000 and current liabilities will increase by \$4,000. Calculate the initial investment in the high-powered microscopy machine.

7. The financial statements of Zach Industries for the year ended December 31, 2012, follow:

Zach Industries Income Statement Zach Industries Balance S			e Sheet		
for the Year Ended Decemb	for the Year Ended December 31, 2012		<b>December 31, 2012</b>		
<u>Item</u>	<b>Amount</b>	<u>Item</u>	<b>Amount</b>		
	<u>in \$</u>		<u>in \$</u>		
Sales revenue	<u>160,000</u>	<u>Assets</u>			
Less: Cost of goods sold	106,000	Cash	500		
Gross profits	54,000	Marketable securities	1,000		
Less: Operating expenses		Accounts receivable	25,000		
Selling expense	16,000	Inventories	45,500		
General and	10,000	Total current assets	72,000		
administrative expenses.		Land	26,000		
Lease expense	1,000	Buildings and equipment	90,000		
Depreciation expense	10,000	Less: Accumulated	<u>38,000</u>		
Total operating	<u>37,000</u>	depreciation			
expense		Net fixed assets	<u>78,000</u>		
Operating profits	17,000	Total assets	<u>150,000</u>		
Less: Interest expense	<u>6,100</u>	<b>Liabilities and</b>			
Net profits before taxes	10,900	Stockholders' Equity			
Less: Taxes	<u>4,360</u>	Accounts payable	22,000		
Net profits after taxes	<u>6,540</u>	Notes payable	<u>47,000</u>		
		Total current liabilities	69,000		
		Long-term debt	22,950		
		Common stock <sup>a</sup>	31,500		
		Retained earnings	<u>26,550</u>		
		Total liabilities and 150,000			
		stockholders' equity			
		<sup>a</sup> The firm's 3,000 outstanding shares of common			
		stock closed 2012 at a price of \$25 per share.			

(a) Use the preceding financial statements to complete the following table. Assume the industry averages given in the table are applicable for both 2011 and 2012

Zach Industries Ratio Analysis				
	Industry Average	Actual 2011	Actual 2012	
Current ratio	1.80	1.84	-	
Quick ratio	0.70	0.78	-	
Inventory turnover	2.50	2.59	-	
Average collection period	37.5 days	36.5 days	-	
Debt ratio	65%	67%	-	
Times interest earned	3.8	4.0	-	
Gross profit margin	38%	40%	-	
Net profit margin	3.5%	3.6%	-	
Return on total assets	4.0%	4.0%	-	
Return on common equity	9.5%	8.0%	-	
Market/book ratio	1.1	1.2	-	

(b) Analyze Zach Industries' financial condition as it is related to (i) liquidity, (ii) activity, (iii) debt, (iv) profitability, and (v) market. Summarize the company's overall financial condition.

# श्रूल व्यव विजलप्र

**MBA 3314** 

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

**Course Title: Managerial Finance** 

Submit by March 21, 2025

(The assignment is to be presented in own handwriting on A4 size white pages)

### **Questions**

1. How is a net present value profile used to compare projects? What causes conflicts in the ranking of projects via net present value and internal rate of return?

2. Froogle Enterprises is evaluating an unusual investment project. What makes the project unusual is the stream of cash inflows and outflows shown in the following table:

Year	0	1	2	3	4
Cash flow	\$ 200,000	-920,000	1,582,000	-1,205,200	343,200

- (a) Why is it difficult to calculate the payback period for this project?
- (b) Calculate the investment's net present value at each of the following discount rates: 0%, 5%, 10%, 15%, 20%, 25%, 30%, 35%.
- (c) What does your answer to part b tell you about this project's IRR?
- (d) Should Frougle invest in this project if its cost of capital is 5%? What if the cost of capital is 15%?
- (e) In general, when faced with a project like this, how should a firm decide whether to invest in the project or reject it?
- 3. Describe how each of the following behavioral approaches can be used to deal with project risk: (a) scenario analysis and (b) simulation.
- 4. Compare and contrast the internal rate of return approach and the net present value approach to capital rationing. Which is better? Why?
- 5. Play-More Toys produces inflatable beach balls, selling 400,000 balls per year. Each ball produced has a variable operating cost of \$0.84 and sells for \$1.00. Fixed operating costs are \$28,000. The firm has annual interest charges of \$6,000, preferred dividends of \$2,000, and a 40% tax rate.
  - (a) Calculate the operating breakeven point in units.
  - (b) Use the degree of operating leverage (DOL) formula to calculate DOL.
  - (c) Use the degree of financial leverage (DFL) formula to calculate DFL.
  - (d) Use the degree of total leverage (DTL) formula to calculate DTL.
  - (e) Compare this to the product of DOL and DFL calculated in parts b and c.
- 6. Why do maximizing EPS and maximizing value not necessarily lead to the same conclusion about the optimal capital structure?

# श्रूल वर विजलप्र

**MBA 3314** 

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

**Course Title: Managerial Finance** 

**Submit by May 02, 2025** 

(The assignment is to be presented in own handwriting on A4 size white pages)

### **Questions**

1. Contrast the basic arguments about dividend policy advanced by Miller and Modigliani (M and M) and by Gordon and Lintner.

2. Yong Importers, an Asian import company, is evaluating two mutually exclusive projects, A and B. The relevant cash flows for each project are given in the table below. The cost of capital for use in evaluating each of these equally risky projects is 10 percent.

	Project A	Project B		
Initial Investment	\$350,000	\$425,000		
Year	Cash Inflows (CF)			
1	\$140,000	\$175,000		
2	165,000	150,000		
3	190,000	125,000		
4	100,000			
5	75,000			
6	50,000			

- (a) Calculate the net present value of each project and rank them on the basis of NPV.
- (b) Calculate the annualized net present value (ANPV) of each project and rank them accordingly.
- (c) Why is ANPV preferred over NPV when ranking projects with unequal lives?
- 3. Go through the case and answer to the questions given below the case:

#### **Integrative Case: Lasting Impressions Company**

Lasting Impressions (LI) Company's general manager has proposed the purchase of one of two large, six-color presses designed for long, high-quality runs. The purchase of a new press would enable LI to reduce its cost of labor and therefore the price to the client, putting the firm in a more competitive position. The key financial characteristics of the old press and of the two proposed presses are summarized in what follows.

Press A This highly automated press can be purchased for \$830,000 and will require \$40,000 in installation costs. It will be depreciated under MACRS using a 5-year recovery period. At the end of the 5 years, the machine could be sold to net \$400,000 before taxes. If this machine is acquired, it is anticipated that the following current account changes would result:

Cash: +\$25,400

Accounts receivable: +\$120,000

Inventories: -\$20,000

Accounts payable: +\$35,000

Press B This press is not as sophisticated as press A. It costs \$640,000 and requires \$20,000 in installation costs. It will be depreciated under MACRS using a 5-year recovery period. At the end of 5 years, it can be sold to net \$330,000 before taxes. Acquisition of this press will have no effect on the firm's net working capital investment.

The firm estimates that its earnings before depreciation, interest, and taxes with the old press and with press A or press B for each of the 5 years would be as shown in the Table below. The firm is subject to a 40% tax rate. The firm's cost of capital, r, applicable to the proposed replacement is 14%.

Earnings before Depreciation, Interest, and Taxes for Lasting Impressions Company's							
Presses							
Year	1	2	3	4	5		
Old press	\$120,000	120,000	120,000	120,000	120,000		
Press A	\$250,000	270,000	300,000	330,000	370,000		
Press B	\$210,000	210,000	210,000	210,000	210,000		

#### **Ouestions:**

- (a) For each of the two proposed replacement presses, determine:
  - i. Initial investment.
  - ii. Operating cash inflows. (*Note:* Be sure to consider the depreciation in year 6.)
  - iii. Terminal cash flow. (*Note:* This is at the end of year 5.)
- (b) Using the data developed in part **a**, find and depict on a time line the relevant cash flow stream associated with each of the two proposed replacement presses, assuming that each is terminated at the end of 5 years.
- (c) Using the data developed in part **b**, apply each of the following decision techniques:
  - i. Payback period. (*Note:* For year 5, use only the operating cash inflows—that is, exclude terminal cash flow—when making this calculation.)
  - ii. Net present value (NPV).
  - iii. Internal rate of return (IRR).
- (d) Draw net present value profiles for the two replacement presses on the same set of axes, and discuss conflicting rankings of the two presses, if any, resulting from use of NPV and IRR decision techniques.
- (e) Recommend which, if either, of the presses the firm should acquire if the firm has (1) unlimited funds or (2) capital rationing.
- (f) What is the impact on your recommendation of the fact that the operating cash inflows associated with press A are characterized as very risky in contrast to the low-risk operating cash inflows of press B?

## श्रून वर विजलप्र

MBA 3315

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

Course Title: Operations Management Submit by February 07, 2025

## Instructions for Assignment Submission

- 1. Answer all questions in your own handwriting on A4 size white paper.
- 2. Fill-in the cover page (see page#6 of Academic Calendar) of your assignment with care.
- 3. Submit the assignment to the study centre coordinator or his/her delegate and ensure his/her signature on your Assignment Acknowledgement Form (see page#7 of Academic Calendar).
- 4. Don't make spiral binding. Instead, make soft binding.
- 5. If it is noticed that your assignment is copied from another student's assignment, your assignment will automatically be cancelled.
- 6. In the case of delayed submission, the School will not acknowledge the submission of the assignment(s) and will not be responsible for any damage or loss of the assignment(s).
- 7. Preserve the photocopy of each assignment so that you can claim its marks if your marksheet shows "Not submitted" or "Zero" in assignment(s).
- 8. Join the WhatsApp group (https://chat.whatsapp.com/GcS9jcPWT4qIABrgrZ3zpq) if you haven't yet joined.

### Questions

- 1. (a) Explain the operation system of your organization, including relevant diagrams and examples to illustrate key processes.
  - (b) Suppose you are a production manager planning to make long-term production decisions. Do you foresee any challenges in this process? What specific challenges might arise? What could be the reasons behind these challenges? How can you effectively address and resolve them? Justify your proposed solutions.
- 2. (a) "Improvements in quality lead to improvements in productivity". Do you agree? Justify your answer.
  - (b) Imagine you are a production manager in a finished leather goods industry, and your company's earnings have decreased this year. The top-level management has tasked you with identifying the reasons for the reduced profit and proposing solutions to address these issues. How would you approach analyzing the situation and formulating your recommendations?
- 3. (a) Should Bangladeshi operation managers take modern perspectives on new strategy formulation into account? Why or why not? Justify your answer.
  - (b) Identify key performance indicators of a teacher, sales representative, and finance manager.

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# श्रूल वर विजलप्र

MBA 3315

## **Bangladesh Open University**

MBA Program Semester: 221; Level: 3rd

**Course Title: Operations Management** 

Submit by March 21, 2025

(The assignment is to be presented in own handwriting on A4 size white pages)

### **Questions**

- 1. (a) Suppose you manufacture leather products for both domestic and international markets. What factors are likely to impact your business opportunities? Why? Discuss in detail.
  - (b) What are the fundamental differences between continuous and intermittent processing? Why and how these two are important for your leather products? Discuss.
- 2. (a) Using a specific service industry (e.g., healthcare, hospitality, or retail), explain how service blueprinting can be used to improve customer experience.
  - (b) Imagine you are a restaurant manager, and you are informed that a couple dining has just seen a mouse. How would you address the situation and communicate with the couple to recover from this service crisis? What actions would you take to handle the incident effectively?
- 3. (a) Suppose you want to establish a garment factory in Bangladesh. Should you consider all the steps necessary in the overall location strategy? Why? Why not? Explain.
  - (b) A pepperbox company carries out pizza boxes. The operations planning department knows that the pizza sales of a major client are a function of the advertising dollars, the client spends, on account of which they receive in advance of the expenditure. Operation planning is interested in determining the relationship between the client's advertisement and sales. The amount of pizza boxes the client would order, in dollar volume, is known to be a fixed percentage of sales.

Quarterly advertising and sales

Quarter	Advertising (\$ 1,00,000 )	Sales (\$1,000,000)
1	4	1
2	10	4
3	15	5
4	12	4
5	8	3
6	16	4
7	5	2
8	7	1
9	9	4
10	10	2

Forecast sales for the next period i.e. for the period 11.

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## श्रूल वर विजलप्र

MBA 3315

## **Bangladesh Open University**

MBA Program Semester: 211; Level: 3rd

**Course Title: Operations Management** 

**Submit by May 02, 2025** 

(The assignment is to be presented in own handwriting on A4 size white pages)

### **Questions**

1. (a) Consider the layout of a retail store and a restaurant that you have recently visited. What criteria seemed most important in their planning? Why?

(b) The following activities are part of a project to be scheduled using CPM.

Activity	Immediate Predecessor	Time (weeks)	
A	-	6	
В	A	3	
С	A	7	
D	С	2	
Е	B,D	4	
F	D	3	
G	E,F	7	

### Required:

- (i) Draw the network.
- (ii) What is the critical path?
- (iii) How many weeks will it take to complete the project?
- (iv) How much slack does activity?
- 2. (a) Explain how the JIT can help you to perform better with your MBA program at Bangladesh Open University.
  - (b) One of the top-selling SKUs in the museum's gift shop is a bird feeder. Sales are 18 units per week with a standard deviation of 5 units. The supplier charges \$60 per unit. The cost of placing an order with the supplier is \$45. Annual holding cost is 25 percent of a feeder's value, and the museum operates 52 weeks a year. A 390-unit lot size has been chosen.

#### Required:

- (i) Calculate the annual total cost.
- (ii) Calculate the EOQ.
- (iii) Calculate total annual cost (TC) at EOQ.
- (iv) How frequently will orders be placed if the EOQ is used (in days)?
- (v) Determine the safety stock and reorder point if management wants a 90 percent cycle service level.
- (vi) Suppose that we mistakenly estimate inventory holding cost to be 50 percent of the feeder's value. What is the new EOQ? What is the change expressed as a percentage of the previous EOQ?

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