

MANAGEMENT INFORMATION

Time allowed – 2:15 hours

Full marks – 100

[N.B.- The figures in the margin indicate full marks. Questions must be answered in English. Examiner will take account of the quality of language and of the way in which the answers are presented. Different parts, if any, of the same question must be answered in one place in order of sequence.]

- | | Marks |
|---|-------|
| 1. A fixed cost is a cost which, within a relevant range of activity levels, is not affected by increase or decrease in the level of activity – explain relevant range with an example? | 6 |
| 2. a) “It is easy to confuse fixed and variable costs with indirect and direct costs”– explain the statement with examples? | 5 |
| b) On 1 November 2018, XYZ Ltd held 3 pink satin dresses with orange sashes. These were valued at Tk. 120 each. During November 2018, 12 more of the dresses were delivered as follows: | |

Date	Dresses received	Cost per dress (Tk.)
10 November	4	125
20 November	4	140
25 November	4	150

A number of pink satin dresses with orange sashes were sold during November as follows:

Date	Dresses sold	Price per dress (Tk.)
14 November	5	200
21 November	5	200
28 November	1	200

Requirement:

Calculate the gross profit from selling the pink satin dresses with orange sashes in November 2018, applying the cumulative weighted average pricing principles of inventory valuation.

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| 3. a) What is sensitivity analysis – why is it performed while preparing master budget? | 5 |
| b) A transport company has recorded the following maintenance cost for the last two periods: | |

	Period 7	Period 8
Miles travelled	30,000	50,000
Maintenance cost per mile	Tk. 1.90	Tk. 1.30

What would be the forecast maintenance cost for period 9, when 38,000 miles will be travelled? 8

4. The following selected data were taken from the financial statements of the Hassan Enterprise for December 31, 2018, 2017, and 2016:

	<u>Dec. 31, 2018</u>	<u>Dec.31, 2017</u>	<u>Dec. 31, 2016</u>
	Taka	Taka	Taka
Total assets	3,000,000	2,700,000	2,400,000
Notes payable (10% interest)	1,000,000	1,000,000	1,000,000
Common stock	400,000	400,000	400,000
Preferred Tk.6 stock, Tk.100 par (no change during year)	200,000	200,000	200,000
Retained earnings	1,126,000	896,000	600,000

The net income of 2018 was Tk.242,000 and the net income of 2017 was Tk.308,000. No dividends on common stock were declared between 2016 and 2018.

Requirements:

- | | |
|--|---|
| (a) Determine the rate earned on total assets and the rate earned on stockholders' equity for the years 2018 and 2017. Round the figures to one decimal place. | 8 |
| (b) What conclusion can be drawn from these data as to the company's profitability? | 5 |
5. Dhaka Timber Ltd. is involved in milling and finishing of wooden fixtures. A certain fixture requires the following:
- | | |
|-------------------------------------|--|
| Direct materials standard | 2 square yards at Tk.13.50 per square yard |
| Direct manufacturing labor standard | 1.5 hours at Tk.20.00 per hour |

During the first quarter, the company made 1,500 fixtures and used 3,150 square yards of wood costing Tk.42,600. Direct labor totalled 2,100 hours for Tk.46,150.

Requirements:

- a. Compute the direct materials price and efficiency variances for the quarter. 6
 - b. Compute the direct manufacturing labor price and efficiency variances for the quarter. 6
6. a) What are the reasons of material price and usage variances – narrate briefly? 5
- b) The standard marginal cost card for the TR, one of the products made by P Co, is as follows:

Materials 16 kgs x Tk. 6 per kg	Tk. 96
Labour 6 hours x Tk. 12 per hour	<u>72</u>
	<u>168</u>

P Co reported the following variances in control period 13 in relation to TR: Material price Tk.18,840 favourable, Material usage Tk.480 adverse, Labour rate Tk.10,598 adverse, Labour efficiency Tk.8,478 favourable and Actual wages cost Tk.171,320. P Co paid Tk.5.50 for each kg of material and there were no opening or closing inventories of the materials.

Required to calculate:

2½x4=10

- (i) Actual output
 - (ii) Actual hours worked
 - (iii) Average actual wage rate per hour
 - (iv) Actual amount of materials purchased and used in Kg.
7. a) What are the limitations of breakeven analysis? 5
- b) ABC Limited sells one product for which data is given below:

	Tk. Per unit
Selling price	10
Variable cost	6
Fixed cost	2

The fixed costs are based on a budgeted level of activity of 5,000 units for the period.

Answer the following:

3x3=9

- (i) How many units must be sold if ABC Limited wishes to earn a profit of Tk. 6,000 for one period?
 - (ii) What is ABC Limited's margin of safety for the budget period if fixed costs are 20% higher than budget?
 - (iii) If the selling price and variable cost increase by 20% and 12% respectively, by how much must sales volume change compared with the original budgeted level in order to achieve the original budgeted profit for the period?
8. A Tk.1,600,000 investment is required for Zakaria to purchase an equipment with an eight-year life. At the end of eight years, the equipment will have no salvage value. For eight years, the equipment will provide net income at the end of each year as follows:

	<u>Taka</u>
Sales	3,000,000
Less: Variable Expenses	<u>1,800,000</u>
Contribution margin	1,200,000
Less (Fixed Expenses):	
Advertising	700,000
Depreciation on equipment	<u>200,000</u>
Net income	<u>300,000</u>

Other information are as follows:

Required rate of return	18%
Tax rate	30%
Depreciation method for tax purposes	Straight-line
Present value of ordinary annuity of one at 18% for 8 periods	4.0776
Present value of one at 18% for 8 periods	0.266

- (a) You are required to compute the after-tax annual cash flows generated by the equipment and the equipment's net present value. 4+5
- (b) If the salvage value of the equipment is Tk.10,000, compute the equipment's net present value. 6

-The end-