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ST. XAVIER'S COLLEGE (AUTONOMOUS)

**5th SEMESTER EXAMINATION
B.B.A.
NOV - DEC 2010**

PERFORMANCE EVALUATION

PMEA3501

Wednesday, November 24, 2010 8:30 am to 12:30 pm

Time allowed: **4 hours**

Full Marks: **100**

Instructions:

- Use fountain pen or ball-point pen of blue or black ink.
- Answer in your own words as far as practicable.
- Do not write anything on the Question paper other than your Roll No.

Group – A

Answer **ANY FIVE** questions.

[5x4 = 20]

1. (a) A company has a profit margin of 20% and asset turnover of 3 times. What is the company's return on investment (ROI)?
(b) Discuss the limitations of ratios in interpreting the financial statements.
(c) Distinguish between joint products and by-products.
(d) The following data is given:

	Budget	Actual
Production (units)	800	720
Man hours to produce above	16,000	14,000
Variable overheads (Rs.)	20,000	18,300

The standard time to produce one unit of the product is 20 hours. Calculate variable overhead variances.

- (e) From the following information compute collection from Debtors for the month of June, July and August:

	April	May	June	July	August
Sales (Rs.)	50,000	60,000	45,000	52,500	62,500

20% of sales are made in cash. Debtors are allowed 2 months credit but will receive 5% discount, if they pay off their dues within the month next to the month of sale. 4/5 th of the debtors normally clear their dues to avoid the discount. Remaining debtors pay on the due date.

- (f) 'Zero-base budgeting is distinct from conventional budgeting.' – Comment.
(g) The fixed costs amount to Rs.60,000 and the proportion of variable cost to sales is two-third. If 100% capacity of sales are Rs.4,00,000 find out the Break-even point of sales and state the percentage of Break-even point sales to sales at full capacity. Determine profit of 75% capacity.
(h) How does 'cost-volume-profit' analysis help in decision making?

Group – B

Answer **ANY FOUR** questions.

[4x20 = 80]

2. (a) XYZ Ltd. has two divisions A & B. Division A manufactures products X which it sells in an outside market as well as to Division B, which processes it to manufacture Z. The manager of division B has expressed the opinion that the transfer price is too high. The two divisional managers are about to enter into discussions to resolve the conflict and the manager of divisions A wants you to supply him with some information prior to the discussions.
Division A has been selling 40,000 units to outsiders and 10,000 units to division B all at Rs.20 per unit. It is not anticipated that these demands will change. The variable cost is Rs.12/unit and the fixed costs are Rs.2 lakhs.
The manager of division A anticipates that division B will want a transfer price of Rs.18. If he does not sell to division B, Rs.30,000 of fixed costs and Rs.1,75,000 of assets can be avoided. The manager of division A would have not control over the proceeds from the sale

of the assets and is judged primarily on his rate of return. The firm's existing assets are of Rs.8 lakh.

- (i) Should the manager of division A transfer its products at Rs.18 to division B?
 (ii) What is the lowest price that the division A should accept? (6+6=12)
 (b) The following is a Control Report prepared by a Cost Accountant out of Department X in a factory:

Overhead directly assigned to Department X:

Indirect Materials (based on actual requisitions)	1,000	
Indirect labour (job tickets)	900	
Overtime charges	100	
Depreciation on equipment	500	2,500
Allocated Factory Overhead (38% of factory space)		4,300
Allocated overhead of repair shop (62% of repairs in repair shop done for department X)		1,200
Allocated office and administrative overhead (on agreed basis)		5,000
Total department Expenses		<u>13,000</u>

Revise the report treating Department X or a Responsibility Centre. (8)

3. (a) The standard cost for a product show as thus:

Material Cost	2 kg @ Rs.2.50 each	Per unit Rs.5.00
Wages	2 hours @ 50 paise each	Rs. 1.00

The actual which have emerged from business operations are as follows:

Production	8,000 units	
Materials consumed	16,500kg @ Rs.2.40	Rs.39,600
Wages paid	18,000 hours@40 paise each	Rs. 7,200

Calculate appropriate material and labour variances. (10)

- (b) Micro Soft Ltd. manufactures computer parts. The following are the total costs of processing 1,00,000 units:

	Rs .
Direct material cost	15,00,000
Direct labour cost	24,00,000
Factory overhead – Variable	18,00,000
Fixed	15,00,000

The purchase price of the computer parts is Rs.66. The fixed overhead would continue to be incurred even when the part is brought from outside, although there would have been reduction to the extent of Rs.6,00,000.

Required:

- (i) Should the part be made or bought, considering that the present facility, when released following a buying decision, would remain idle?
 (ii) In case the released facility can be rented out to another manufacturer for Rs.4,50,000 having good demand, what would be the decision?

(6+4=10)

4. (a) The following is the Financial Statements of PQ Ltd.

Trading and Profit & Loss A/c for the year ended 31.03.2008

Debit		Rs.	Credit		Rs.
To	Opening Stock	80,000	By	Sales	8,00,000
	Purchases	5,00,000		Stock Lost by fire	25,000
	Direct wages	50,000		Closing Stock	1,00,000
	Direct Expenses	15,000			
	Gross Profit c/d	2,80,000			
		9,25,000			9,25,000
To	Salary	45,000	By	Gross Profit b/d	2,80,000
	Rent	36,000		Dividend	5,000
	Printing & Stationary	28,000		Profit on sale of Investment	15,000
	Depreciation	20,000			
	Stock lost by fire	10,000			
	Interest on Loan	7,000			
	Misc. operating expenses	8,000			
	Loss on sale of machinery	10,000			
	Net Profit	1,36,000			
		3,00,000			3,00,000

Balance Sheet as at 31.03.2008

	Rs.		Rs.
Equity share Capital	1,50,000	Fixed Assets	2,25,000
10% Preference Share Capital	75,000	Trade Investments	40,000
Reserves	60,000	Inventory	1,00,000
12% Debentures	50,000	Debtors	40,000
Creditors	55,000	Cash & Bank	5,000
Bills payable	5,000	Profit & Loss A/c	5,000
Bank overdraft	20,000		
	4,15,000		4,15,000

You are to evaluate the performance of the organization based on :

- (i) Liquidity and
- (ii) Profitability. (10)

(b) The XYZ Ltd's income statement for the proceeding year is presented below. Except as noted, the cost/revenue relationship for the coming year is expected to follow the same pattern as in the preceding year. Income statement for the year ending March 31st is as follows:-

	Sales	(2,00,000 bottles @ Rs.2.5 paise each)	Rs.	5,00,000
Less	Variable Costs	Rs.	3,00,000	
	Fixed Costs	<u>1,00,000</u>		<u>4,00,000</u>
	Pre-tax profit			1,00,000
Less	Taxes			<u>35,000</u>
	Profit after tax			<u>65,000</u>

- (1) What is the Break-even point in amount and in units?
- (2) Suppose that a plant expansion will add Rs.50,000 to fixed costs and increase capacity by 60 percent. How many bottles would have to be sold after the addition to Break-even?
- (3) At what level of sales will the company be able to maintain its present pre-tax profit position even after expansion?
- (4) The company's Management feels that it should earn at least Rs.10,000 (pre-tax per annum) on the new investment. What sales volume is required to enable the company to maintain existing profits and earn the minimum required return on new investment? (10)

5. (a) A company produces and sells two products P and Q. The company increase Rs.2,00,000 per annum towards fixed overheads and has provided the following further information.

	Product P (Rs. per unit)	Product Q (Rs. per unit)
Direct Materials@ Rs.100 per kg	400	500
Direct Wages@ Rs.20 per hour	200	300
Variable overhead	200	300
Selling Price	1,040	1,430

You are required to make rank on the basis of materials and labours. Now depending on the availability of raw materials and labour hours, the company considers the following two alternative sales mixes:

- (i) 500 units of P and 300 units of Q.
- (ii) 300 units of P and 500 units of Q.

Recommend which of the sales mixes should be adopted by the company. (6+8=14)

- (b) Make out the importance of limiting factor in decision making.(Give examples). (10)

6. (a) Dolphin Ltd. has obtained four joint products A, B, C and D. Total cost till the point of separation amounted Rs.2,25,000. The output and sales during the year 2009 were as follows:

Products	Output (Units)	Sales (Rs.)	Post-separation Costs (Rs.)
A	60,000	20,000	20,000
B	10,000	80,000	12,000
C	2,000	16,000	6,000
D	5,000	64,000	22,000

Required:

- (i) Calculate the net income from each product if the joint costs are apportioned on the basis of sales value at split off point.
- (ii) What would be the net income if all joint products are sold at split off point A-@Rs.2, B-@Rs.6, C-@Rs.3.50, and D-@Rs.12 per unit.
- (iii) Show by relevant calculations, Which of these four products should be further processed with the above information remaining true in the year 2010. (15)

- (b) Describe the various methods of allocating joint costs to products. (5)

7. (a) The monthly budget for manufacturing overhead of a company for two levels of activity were as follows:

Capacity	60%	100%
Budgeted Production(Units)	300	500
	Rs.	Rs.
Wages	600	1,000
Consumable stores	450	750
Maintenance	550	750
Power & fuel	800	1,000
Depreciation	2,000	2,000
Insurance	500	500
	<u>49,000</u>	<u>60,00</u>

Required:

- (i) Prepare a budget for 80%; and
(ii) Find the total cost, both fixed and variable, per unit of output at 60%, 80%, and 100% capacity. (7+3=10)

- (b) Income forecast for a division are given below:

Profit before depreciation	Rs.	8,00,000
Depreciation	Rs.	2,00,000
Fixed Assets	Rs.	16,00,000
Current Assets	Rs.	6,00,000
Current Liabilities	Rs.	2,00,000
Cost of capital		10%

- (i) Calculate ROI and RI.
(ii) Suppose the division is considering the acceptance of another project, the details of which are:

Profit before depreciation	Rs.	1,60,000
Depreciation	Rs.	34,000
Fixed Assets	Rs.	4,00,000
Net Current Assets	Rs.	2,00,000

Should the project be accepted? Give your comments using both ROI and RI method of evaluation of divisional performance. (4+6=10)
