

Student's Roll No.
(To be written before writing any answer)

Subject Code: PMDP

SEMESTER V – B.B.A. EXAMINATION 2008
PERFORMANCE MEASUREMENT & DECISION MAKING

Full Marks: 100

Time: 4hrs

Students should answer in their own words as far as practicable.

GROUP – A

Answer ANY FIVE Questions:

[5 x 4 = 20]

1. a) What do you mean by 'Joint Product Accounting'?
- b) What is the relation between Break-even Point and Margin of Safety in profit-planning?
- c) *X Ltd.* has current assets of Rs.3,00,000/- and current liabilities of Rs.2,00,000/-. Fixed assets to net worth ratio of the company is 0.8. The company has no debt capital nor any investment. Find out the amount of paid up share capital of the company if proprietors' fund to reserves ratio is 4:1.
- d) Variable cost to sale is 70% for *ABC Ltd.* The break-even point occurs at 50% of the capacity sale. Fixed costs are Rs.1,20,000/-. Compute the profit at 80% of the capacity sale.
- e) High proprietary ratio deprives a company of the benefits of trading on equity. Do you agree?
- f) During the production process of a main product C, 250 units of by-product B were produced. The value of the by-product was Rs.20/- per unit. The by-product required further processing costing Rs.1,000/- while selling and distribution expenses were Rs.300/-. Calculate the cost per unit of by-product B assuming 25% profit on cost.
- g) What is Balance Scorecard? State the perspectives.
- h) Variance analysis is an effective tool of performance measurement. Give your opinion.

GROUP – B

Answer ANY Four Questions:

[4 x 20 = 80]

2. a) What is the Angle of Incidence? (4)

b) Given below are the budgeted sales of 6 months of Moon Ltd., from July 2008 to December 2008: (6)

July	Rs.1,60,000/-
Aug.	Rs.1,20,000/-
Sep.	Rs.1,40,000/-
Oct.	Rs.1,80,000/-
Nov.	Rs.2,00,000/-
Dec.	Rs.2,40,000/-

50% of Sales are on cash. Debtors are allowed 2 months credit but will receive 5% cash discount if they pay off their dues within the month next to the month of sale. 80% of debtors normally clear their dues at the end of that period to avail themselves of cash discount and the balance 20% pay on the due date.

Calculate the budgeted collection from debtors for the 3 months of October, November and December 2008.

c) In a chemical manufacturing company, four chemicals A, B, C and D are produced by a process. The total cost of input for six months ended 31.3.2008 was Rs.2,50,000/-. The output, additional processing cost and sale value for the products were as follows: (6 + 4)

<u>Product</u>	<u>Output</u> <u>(in bottles)</u>	<u>Additional Processing Cost</u> <u>Rs.</u>	<u>Sale Value</u> <u>Rs.</u>
Chemical A	7,000	5,000	80,000
Chemical B	4,000	2,000	20,000
Chemical C	8,000	14,000	30,000
Chemical D	15,000	60,000	3.00,000

You are required to prepare:

- Statement showing apportionment of joint cost on the basis of Net Realisable value.
- Statement of Profitability.

3. (a) Product A is produced out of two materials mixed in the ratio of 3:2 for Material P and Material Q respectively. The normal loss of input is 10% and the standard price per kg. of Material P is Rs.10/- and that of Material Q is Rs.8/-. From the following actual figures for the month of December 2007, calculate : (10)

- material cost variance
- material price variance
- material usage variance
- material mix variance, and
- material yield variance

Material P - 700 Kg. at Rs.9/- per Kg. = Rs.6,300/-

Material Q - 300 Kg. at Rs.10/-per Kg. = Rs.3,000/-

1,000 Kg. Rs.9,300/-

The actual output for the month of December 2008 was 810 Kg. of Product A.

- (b) A firm can buy a component from an outside source at Rs.8/- per unit. There is a proposal that the component be produced in the firm and for this purpose a machine costing Rs.50,000/-(with no residual value)with annual capacity of 12,000 units be purchased. The life of the machine is estimated at 10 years and the estimated production cost is given below: (10)

Direct Material per unit: Rs.2/-
 Direct Labour per unit: Re.1/-
 Variable overhead @ 100% of Direct Labour
 Salary of supervisor exclusively for the purpose: Rs.800/- per month
 Interest on loan @ 18% p.a. from financial institution to buy the machine
 Share of other fixed overhead: Rs.4,400/- p.a.

You are required to find out :

- (i) the level of production at which both the alternatives are equally profitable
 (ii) the range of production at which one alternative is more profitable than the other.

4. (a) Prepare a summarized Balance Sheet of XYZ Ltd. as on 31.3.2008 from the following particulars: (10)

Fixed Assets to Net worth 0 : 75
 Current Ratio 5 : 2
 Acid Test Ratio 3 : 2
 Reserves included in Proprietors' Fund 1 : 4
 Current Liabilities Rs.4,00,000/-
 Cash and Bank Rs.50,000/-

- (b) D Ltd. which produces and sells 3 products i.e. A, B and C is presently disturbed by the results of Product A in view of the following data analysis for an accounting period: (5 + 5)

	A (Rs.)	B (Rs.)	C (Rs.)	Total (Rs.)
Sale	54,000	72,000	36,000	1,62,000
Direct Materials	9,000	18,000	4,500	31,500
Direct Labour	15,000	8,000	6,000	29,000
Variable Overhead	18,000	9,000	4,500	31,500
Fixed Overhead	15,000	21,000	9,000	45,000
Total Cost	57,000	56,000	24,000	1,37,000
Profit (+) / Loss (-)	(-)3,000	(+)16,000	(+)12,000	(+)25,000

- i) Should Product A be discontinued?
 ii) If the analysis of fixed overhead as above shows the following, what will be your recommendation?:

	A (Rs.)	B (Rs.)	C (Rs.)	Total (Rs.)
Identifiable Fixed Overhead	12,400	15,500	7,300	35,200
General Fixed Overhead	-----	-----	-----	9,800
				<u>45,000</u>

5. (a) Discuss the essential pre-requisites for an effective budgetary control system. (10)
- (b) State the important merits and demerits of the negotiated transfer pricing method in divisional performance measurement. (5)
- (c) *D Ltd.* manufactures Product A using two raw materials: X and Y. Determine the relevant cost of materials in each of the following situations:
- i) Material X is already in stores, which were purchased earlier @ Rs.10/- per unit. It has no further use and if not used for producing Product A, the material can be sold @ Rs.8/- per unit in the open market, incurring an expense of Re.1/- per unit.
- ii) Material Y is regularly used for production and can be procured @ Rs.20/- per unit. If it is used for producing Product A, it has to be replenished immediately. $(2\frac{1}{2} + 2\frac{1}{2})$

6. (a) *Sunny Ltd.* fixes the inter divisional price for its products on the basis of cost plus an estimated return on investment in its divisions. The relevant particulars of the budget for Division Z for the year 2008 – 2009 are as follows: (10)

Fixed Assets	Rs.1,000,000/-
Current Assets	Rs. 600,000/-
Annual Fixed cost of the division	Rs. 800,000/-
Variable cost per unit of product	Rs.15/-.
Budgeted volume of production	5,00,000 units.
Budgeted ROI	25%

You are required to determine the transfer price for Division Z.

- (b) Calculate for the year ended 31.3.2008 the following of *P Ltd.* : (10)
- (i) Sale for the year (ii) Sundry Debtors as on 31.3.2008
 (iii) Sundry Creditors as on 31.3.2008 (iv) Closing Stock

Given particulars:

Debtors' velocity.....3 months

Stock velocity.....4 months

Creditors' velocity.....2 months,

G.P. Ratio.....25%

Bills receivable on 31.3.2008.....Rs.50,000/-

Bills payable on 31.3.2008.....Rs.45,000/-

Stock on 31.3.2008 was Rs.30,000/- more than what it was on 31.3.2007. Gross profit for the year ended 31.3.2008 was Rs.750,000/-.

7. (a) Given below are the particulars of a company for an accounting period: (5 + 5)

Sale price per unit	Rs.80/-
Variable cost per unit	Rs.50/-
Fixed expenses	Rs.1,800,000/-

- i) Find out the break-even volume.
- ii) If this volume represents 40% capacity, what is the additional profit for an added production of 40% capacity, the selling price of which is 10% lower for 20% capacity production and 20% lower for the other 20% capacity.

(b) The information relating to the budget period for two levels of capacity utilization is given below: (10)

Capacity	60%	100%
	<u>Rs.</u>	<u>Rs.</u>
Direct materials	720,000	1,200,000
Direct wages	432,000	720,000
Production overhead	540,000	756,000
Administration overhead	200,000	200,000
Selling overhead	144,000	192,000

Prepare a flexible budget for 70% and 80% capacity utilization showing variable cost, fixed cost and total cost for the budget period.
