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Your Roll No. ....

**BFIA / II Sem. – 2012**

**BACHELOR OF FINANCIAL AND  
INVESTMENT ANALYSIS**

Paper 202 (NS)

(Cost and Management Accounting)

Time : 3 hours

Maximum Marks : 75

*(Write your Roll No. on the top immediately  
on receipt of this question paper.)*

*Attempt all questions.*

1. (a) A company has annual fixed costs of Rs. 14,00,000. In year 2 sales amounted to Rs. 60,00,000 as compared with Rs. 45,00,000 in year 1 and profit in year 2 was Rs. 4,20,000 higher than in year -1.

(i) At what level of sales does the company break-even ?

(ii) Determine profit or loss on forecasted sales volume of Rs. 80,00,000.

P.T.O.

- (iii) If there is reduction in selling price in year 3 by 10% and the company desires to earn the same profit as in year 2, what would be the required sales volume? (7)

- (b) ABC LTD, manufactures three products X, Y and Z. The unit-selling prices of these three products are Rs. 100, Rs. 80 and Rs. 50 respectively. The corresponding unit variable costs are Rs. 50, Rs. 40 and Rs. 20. The proportions (quantity wise) in which these products are manufactured and sold are 20%, 30% and 50% respectively. The total fixed costs are Rs. 14,80,000.

Given the above information, you are required to work out the overall break-even point and product-wise break up of such quantity. (7)

- (c) JM Company Ltd produces a single product. Its selling price and production cost per unit are as under :

|                         |              |
|-------------------------|--------------|
| Output                  | 40,000 units |
|                         | Rs.          |
| Material cost/unit      | 4            |
| Labour cost/unit        | 4            |
| Variable overheads/unit | 2            |
| Fixed expenses/unit     | 4            |

Due to depression, the company is not able to sell at the existing selling price of Rs. 16 per unit. However, it is possible to sell the total output of Rs. 40,000 units at Rs. 12 per unit.

You are required to advise whether the company should sell at Rs. 12 per unit or close the factory. (4)

- (d) The following particulars are obtained from costing records of a factory :

|                             | Product A<br>Per unit Rs. | Product B<br>Per unit Rs. |
|-----------------------------|---------------------------|---------------------------|
| Selling price               | 440                       | 1,000                     |
| Material (Rs. 40 per litre) | 80                        | 320                       |
| Labour (Rs. 20 per hour)    | 100                       | 200                       |
| Variable overhead           | 40                        | 80                        |

Total fixed overheads : 30,000

Comment on profitability of each product when

- (i) Raw material is in short supply  
(ii) Production capacity is limited  
(iii) Sales quantity is limited  
(iv) Sales value is limited (7)

2. The following details are available from the records of ABC Ltd., engaged in manufacturing article 'A'. The standard labour hours and rate of payment per article 'A' were as follows :

|                     | Hours | Rate per hour (Rs) | Total (Rs.) |
|---------------------|-------|--------------------|-------------|
| Skilled labour      | 10    | 3                  | 30          |
| Semi-skilled labour | 8     | 1.5                | 12          |
| Unskilled Labour    | 16    | 1                  | 16          |

The actual production was 1,000 articles of 'A' for which the actual hours worked and the rates are given below :

|                  | Hours  | Rate per hour (Rs) | Total (Rs.) |
|------------------|--------|--------------------|-------------|
| Skilled Labour   | 9,000  | 4                  | 36,000      |
| Semi-skilled     | 8,400  | 1.5                | 12,600      |
| Unskilled labour | 20,000 | 0.90               | 18,000      |

Calculate :

- Labour cost variance
- Labour rate variance
- Labour efficiency variance
- Labour mix variance
- Labour yield variance

(10)

3. The finished product of a manufacturing company passes through processes I, II, III. The normal wastage in each process is 5%, 7% and 10% for each processes I, II and III respectively (Calculated with reference to the number of units fed into each process). The scrap generated out of wastage has a sale value of 70 paise per unit, 80 paise per unit and Rupee 1 per unit in the process I, II, and III respectively. The output of each process is transferred to the next process and the finished output emerges from process III transferred to finished stock. There was no stock of work-in-progress in any process in a particular month. The details of cost data for the month are given below :

|                          | Processes |        |        |
|--------------------------|-----------|--------|--------|
|                          | I         | II     | III    |
| Materials used (Rs.)     | 1,20,000  | 40,000 | 40,000 |
| Direct Labour Cost (Rs.) | 80,000    | 60,000 | 60,000 |
| Production expenses      | 40,000    | 40,000 | 28,000 |
| Output in units (actual) | 38,000    | 34,600 | 32,000 |

Process I was fed with 40,000 units of raw input at cost of Rs. 3,20,000.

Prepare the three Processes account. (10)

P.T.O.



4. (a) From the following data, prepare a flexible budget for production of 40,000 units, distinctly showing variable cost and fixed costs as well as total cost. Also indicate element-wise cost per unit. Budgeted output is 1,00,000 units and budgeted cost per unit is as follows :

|                                    | Rs. (cost/unit) |
|------------------------------------|-----------------|
| Direct material                    | 95              |
| Direct labour                      | 50              |
| Production overhead (variable)     | 40              |
| Production overhead (fixed)        | 5               |
| Administration overhead (fixed)    | 5               |
| Selling overhead (10% fixed)       | 10              |
| Distribution overheads (20% fixed) | 15              |
|                                    | (5)             |

- (b) The following are the estimated sales of a company for eight months ending 30.11.2011 :

| Month           | Estimated sales in units |
|-----------------|--------------------------|
| April, 2011     | 12,000                   |
| May, 2011       | 13,000                   |
| June, 2011      | 9,000                    |
| July, 2011      | 8,000                    |
| August, 2011    | 10,000                   |
| September, 2011 | 12,000                   |
| October, 2011   | 14,000                   |
| November, 2011  | 12,000                   |

As a matter of policy, the company maintains the closing balance of finished goods and raw materials as follows :

| Stock item     | Closing balance of a month                    |
|----------------|---|
| Finished Goods | 50% of the estimated sales for the next month |
| Raw materials  | Estimated consumption for the next month.     |

Every unit of production requires 2 kg of raw materials costing Rs. 5 per kg.

Prepare production budget (in units) and Raw Material Purchase Budget (in units and cost) of the company for the first year ending 30 September, 2011. (5)

5. Explain the concept of

(a) Activity based costing and

(b) Target costing. (8)

6. Write short notes on any **three** of the following :

(a) Cost centre and cost unit

(b) Controllable and uncontrollable cost

(c) Conversion cost

(d) Relevant and irrelevant cost

(e) Zero based Budgeting (6)

7. Giant Ltd. is manufacturing refrigerators at Gaziabad. Prepare a statement showing the cost of production (factory cost) based on the following details provided to you for the year ended 31st March 2012.

|   | Rs.    | Rs.      |
|---|--------|----------|
| Work-in-progress, 1st April, 2011             |        |          |
| At prime cost                                 | 51,000 |          |
| Manufacturing expenses                        | 15,000 |          |
|   | -----  | 66,000   |
| Work-in-progress 31st March 2012              |        |          |
| At prime cost                                 | 45,000 |          |
| Manufacturing expenses                        | 9,000  |          |
|   | -----  | 54,000   |
| Stock of Raw material 1st April, 2011         |        | 2,25,000 |
| Purchase of Raw materials                     |        | 4,77,000 |
| Direct labour                                 |        | 1,71,000 |
| Manufacturing expenses                        |        | 84,000   |
| Stock of Raw materials<br>on 31st March, 2012 |        | 2,04,000 |
|   |        | (6)      |