

GUJARAT TECHNOLOGICAL UNIVERSITY**M.B.A -IInd SEMESTER-EXAMINATION – MAY/JUNE- 2012****Subject code: 2820001****Date: 28/05/2012****Subject Name: Cost and Management Accounting****Time: 10:30 am – 01:30 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Define following terms: **07**
- (i) Cost Object
 - (ii) Margin of safety
 - (iii) Sunk Cost
 - (iv) Cost Driver
- (b)** ABCL manufactures two products M and N, for which same equipments and similar processes are used. The production data for the production during one year shown below: **07**

| | M | N |
|--------------------------------|--------|--------|
| Units produced | 15,000 | 21,000 |
| Direct Labour Hours per unit | 3 | 6 |
| Machine Hours per unit | 9 | 3 |
| Set-ups during the year | 30 | 120 |
| Orders handled during the year | 45 | 180 |

| | |
|--------------------------------|-----------------|
| Overheads are: | Rs. |
| Relating to machine activity | 6,60,000 |
| Relating to production set-ups | 60,000 |
| Relating to handling of orders | <u>1,35,000</u> |
| | <u>8,55,000</u> |

Calculate the production overhead rate for absorption of overheads per unit under:

- (a) Traditional approach, using direct labour hour rate to absorb overheads
 - (b) Activity based costing approach
- Q.2 (a)** From the following data of April, 2005 of M/S. Ruchi Corporation prepare cost-sheet showing cost per unit. **07**
- | | |
|--|----------|
| Raw Materials (Rs.) | 1,80,000 |
| Direct Wages (Rs.) | 90,000 |
| Machine Hours worked (hours) | 10,000 |
| Machine Hour Rate (per hour) | 8 |
| Administration overheads 10% of works cost. | |
| Selling Overheads Rs.5/- per unit. | |
| Units produced 4,000 and Units sold 3,600. Selling Price per unit Rs. 125. | |
- (b)** Discuss in brief advantages and limitations of marginal costing. **07**
- OR**
- (b)** Write a note on zero-base budgeting. **07**
- Q.3 (a)** A chemical process produces two products Y and Z. The joint costs of the **07**

process are Rs. 2,000. Output is 400 Kgs. of Y which is sold for Rs. 6 per kg. and 100 kg. of Z which is sold for Rs. 8 per kg. There is no scrap.

(i) You are required to apportion the joint cost using the physical measures basis and sales value basis.

(ii) Assuming that 100 kgs. of Y and 10 kgs. of Z remain unsold at the end of the accounting period. Prepare a statement showing the profit from Y and from Z and the total profit for the period based on each of the two methods. Presume that administration overheads were Rs. 100 and Rs. 120 respectively whereas S&D overheads were Rs. 80 and Rs.130 respectively for the two products.

- (b) You have been given a permit to run a bus on a route 20 kms. Long. The bus cost you Rs. 90,000. It has to be insured @ 3% p.a. and the annual tax will be Rs. 1,000. Garage rent is Rs. 100 p.m. Annual repairs will be Rs. 1,000 and the bus is likely to last for 5 years at the end of which the scrap value is likely to be Rs. 6,000.

The driver's salary will be Rs. 150 p.m. and the conductor's Rs. 100 and 10% of the takings as commission (to be shared equally by both).

Stationery will cost Rs. 50 p.m. The manager cum accountant's salary will be Rs. 350 p.m.

Diesel and oil be Rs. 25 per hundred kms. The bus will make 3 round trips for carrying on the average 40 passengers on each trip. The bus will work on the average 25 days in a month.

Assuming 15% profit on takings, calculate the bus fare to be charged from each passenger for 100 passenger kms.

OR

- Q.3** (a) Explain Normal Loss, Abnormal Loss and Abnormal Gain with an example under process costing. **07**

- (b) From the following information, prepare Process Account (FIFO Method) **07**

| | | |
|-------|--|--|
| (i) | Opening work in progress (200 units @ ` 4/- per unit) | Stage of completion 100% materials 40% labour 40% overheads |
| (ii) | Units introduced | 1,050 |
| (iii) | Transfer to next process | 1,100 units |
| (iv) | Closing Stock – 150 units | Stage of completion 100% materials 70% labour 70% overheads |
| (v) | Cost incurred during the period: | |
| | | Rs. |
| | Material | 1,050/- |
| | Labour | 2,250/- |
| | Production overhead | 1,125/- |
| | | ----- |
| | | <u>4,425/-</u> |

- Q.4** (a) A company sells its product at Rs. 15 p.u. In a period if it produces and sells 8,000 units, it incurs a loss of Rs. 5 p.u. If the volume is raised to 20,000 units it earns a profit of Rs. 4 p.u.

Calculate break-even point both in terms of units as well as in rupees.

- (b) Jainil Ltd. can produce three different products from the same raw material **07**

using the same production facilities. The requisite labour is available in plenty at Rs. 8 per hour for all products. The supply of raw material, which is imported at Rs. 8 per kg. is limited to 10,400 kgs. for the budget period. The variable overheads are Rs. 5.60 per hour. The fixed overheads are Rs. 50,000. The selling commission is 10% on sales.

From the following information you are required to suggest the most suitable sales mix, which will maximize the firm's profits. Also determine the profit that will be earned at that level:

| Product | Market Demand (units) | S.P. p.u. (Rs.) | Labour Hours Reqd. p.u. | Raw Mat. Reqd. per unit (kgs.) |
|---------|-----------------------|-----------------|-------------------------|--------------------------------|
| X | 8,000 | 30 | 1 | 0.7 |
| Y | 6,000 | 40 | 2 | 0.4 |
| Z | 5,000 | 50 | 1.5 | 1.5 |

OR

- Q.4 (a)** Karan Ltd. has been so far producing and selling following three products. Information about selling price and the cost is given below: **07**

| | Product | | |
|--------------------|----------|-------------|---------------|
| | X (Rs.) | Y (Rs.) | Z (Rs.) |
| Selling Price | 14 | 16 | 13 |
| Costs: | | | |
| Material | 5 | 10 | 2 |
| Labour | 2 | 1 | 3 |
| Variable Overheads | 1 | 0.50 | 1.50 |
| Fixed Overheads | <u>5</u> | <u>2.50</u> | <u>7.50</u> |
| Net Profit (Loss) | <u>1</u> | <u>2.00</u> | <u>(1.00)</u> |

At present, the company has been producing 5,000 units of X, 8,000 units of Y and 1,000 units of Z. As product Z has been consistently fetching sizable amount of loss only, the company virtually is putting no worth noting effort to augment the sales of the same. In fact, it is seriously thinking of dropping this product. The fixed overheads in all amount to Rs. 52,500 p.a. and they are apportioned to the three products on the basis of the labour cost.

You are required to comment and state profit implications of dropping product Z.

- Q.4 (b)** A company wants to buy a new machine to replace one which is having frequent breakdown. It received offers for two models HM and JM. Further, details regarding these models are given below: **07**

| Particulars | HM | JM |
|--|----------|----------|
| Installed capacity (Units) | 10,000 | 10,000 |
| Fixed overheads p.a. (Rs.) | 2,40,000 | 1,00,000 |
| Estimated profit at the above capacity (Rs.) | 1,60,000 | 1,00,000 |

The product manufactured using this type of machine (HM or JM) is sold at Rs. 100 per unit.

You are required to determine:

- (i) Break-even level of sales for each model.
- (ii) The level of sales at which both the models will earn the same profit.
- (iii) The model suitable for different levels of demand for the product.

Q.5 (a) Hetal Ltd. submits the following figures for the first quarter of 2004: **07**

| | Product | | |
|---|---------|--------|----------|
| | X | Y | Z |
| Sales in units: Jan. – 2004 | 25,000 | 30,000 | 1,00,000 |
| Feb. – 2004 | 20,000 | 25,000 | 1,00,000 |
| March - 2004 | 30,000 | 35,000 | 1,00,000 |
| Selling price per unit Rs. | 10 | 20 | 40 |
| Targets for 1 st quarter of 2005: | | | |
| Sales quantity increase | 20% | 10% | 10% |
| Increase in selling price per unit | NIL | 10% | 25% |
| <u>Stock position as on 1st Jan 2005</u> | | | |
| % of Jan 2005 sales | 50% | 50% | 50% |
| Stock position as on 31 st March '05 | 20,000 | 25,000 | 50,000 |
| <u>Stock position end Jan. & Feb. '05</u> | | | |
| % of subsequent month's sales | 50% | 40% | 60% |

You are required to prepare the sales and production budget for the first quarter of 2005 with necessary working.

(b) **07**

| Standard Data (100 Units) | | | | Actual Data (120 Units) | | | |
|---------------------------|------------|------|--------------|-------------------------|------------|------|--------------|
| Type | Hours | Rate | Total | Type | Hours | Rate | Total |
| Skilled | 1,000 | 12 | 12,000 | Skilled | 1,150 | 11 | 12,650 |
| Semi-skilled | 600 | 8 | 4,800 | Semi-skilled | 670 | 9 | 6,030 |
| | <u>400</u> | 6 | <u>2,400</u> | | <u>420</u> | 7 | <u>2,940</u> |
| Unskilled | 2,000 | | 19,200 | Unskilled | 2,240 | | 21,620 |

Of the total hours paid for 40 hours were idle hours due to power failure. Of the 40 idle hours, 20 hours relates to skilled, 10 hours relates to semi-skilled & unskilled each.

Compute all possible variances.

OR

Q.5 (a) Write a short note on Cost Accounting Standards (CAS). **07**

(b) Following data relates to the month of February, 2011. **07**

| Budgeted Sales | | | | Actual Sales | | | |
|----------------|--------------|------------|---------------|--------------|--------------|------------|-----------------|
| Product | Qty. (Units) | S.P. (Rs.) | Sales (Rs.) | Product | Qty. (Units) | S.P. (Rs.) | Sales (Rs.) |
| A | 1,200 | 15 | 18,000 | A | 880 | 18 | 15,840 |
| B | 800 | 20 | 16,000 | B | 880 | 20 | 17,600 |
| C | <u>2,000</u> | 40 | <u>80,000</u> | C | <u>2,640</u> | 38 | <u>1,00,320</u> |
| | 4,000 | | 1,14,000 | | 4,400 | | 1,33,760 |

Calculate the following variances:

- (i) Total Sales Variance
- (ii) Sales Price Variance
- (iii) Sales Volume Variance
- (iv) Sales Mix Variance
- (v) Sales Quantity Variance
