

**MOCK TEST PAPER – 1**

**FINAL COURSE: GROUP – II**

**PAPER – 5: ADVANCED MANAGEMENT ACCOUNTING**

*Question No. 1 is compulsory*

*Answer any **five** questions from the remaining **six** questions*

**Time Allowed – 3 Hours**

**Maximum Marks – 100**

1. (a) KP Ltd. Manufactures and sells one product called “GAMA”. Following budgeted profit statement of KP limited has been prepared using full absorption method.

|                              | Apr to Sep' 2012 |             | Oct to Mar' 2013 |            |
|------------------------------|------------------|-------------|------------------|------------|
|                              | ₹ '000           | ₹ '000      | ₹ '000           | ₹ '000     |
| Sales                        |                  | 270         |                  | 180        |
| Opening Stock                | 50               |             | 80               |            |
| Production Costs:            |                  |             |                  |            |
| Direct Material              | 54               |             | 18               |            |
| Direct Labour                | 81               |             | 27               |            |
| Overhead                     | <u>45</u>        |             | <u>15</u>        |            |
|                              | 230              |             | 140              |            |
| Closing Stock                | <u>80</u>        | <u>150</u>  | <u>40</u>        | <u>100</u> |
| Gross Profit                 |                  | 120         |                  | 80         |
| Production Overhead:         |                  |             |                  |            |
| (Over)/Under-absorption      | (6)              |             | 6                |            |
| Selling Costs (Fixed)        | 25               |             | 25               |            |
| Distribution Costs           | 22.5             |             | 20               |            |
| Administration Costs (Fixed) | 40               | <u>81.5</u> | 40               | <u>91</u>  |
| Net Profit/(Loss)            |                  | 38.5        |                  | (11)       |

|                  |        |        |
|------------------|--------|--------|
| Sales Units      | 30,000 | 20,000 |
| Production Units | 36,000 | 12,000 |

The distribution costs and production overhead cost consists of both fixed and variable element.

There has been considerable discussion at the corporate level as to use of 'Marginal Costing' principals for "GAMA" product. As per the opinion of managing director of KP Ltd. - "By using absorption costing principles, it is possible for profit to decline when sales volume increases. If the stock levels fluctuate significantly, profits may be distorted because stock changes will significantly affect the amount of fixed overheads allocated to a period" As a chief accountant you are required to:

- (a) Present the above budgeted profit statement in marginal costing format.
- (b) Reconcile each of the six-monthly profit/loss values reported respectively under marginal and full absorption method.
- (c) Reconcile the six-monthly profit ₹ 38,500 for Apr to Sep 2012 with the six-monthly loss ₹ 11,000 for Oct to March 2013.
- (d) Calculate the annual number of units of "GAMA" required to break-even.

(11 Marks)

- (b) The following information is known for a project. Draw the network and find the critical path.

|                        |                       |
|------------------------|-----------------------|
| This must be completed | Before this can start |
|------------------------|-----------------------|

|        |         |
|--------|---------|
| A (14) | B, E, J |
|--------|---------|

|        |   |
|--------|---|
| B (28) | C |
|--------|---|

|        |   |
|--------|---|
| C (20) | D |
|--------|---|

|                |         |
|----------------|---------|
| D (14), E (42) | F, G, K |
|----------------|---------|

|                |        |
|----------------|--------|
| F (14), G (24) | I (30) |
|----------------|--------|

|        |        |
|--------|--------|
| J (60) | K (30) |
|--------|--------|

Note:

Capital letter denotes activities.

Numbers in bracket denote activity times.

(7 Marks)

- (c) Explain 'Degeneracy' in transportation problem. (2 Marks)

2. (a) E-Tech Ltd. manufactures and sells computers peripherals to several retail outlets throughout the country. Josaph is the manager of the printer division. Its two largest-selling printers are Z2001 & Z2002. The manufacturing cost of each printer is calculated using E-Tech's activity based costing system. E-Tech has one direct manufacturing cost category (direct materials) and the following five indirect manufacturing cost pools.

|                                  |                     |
|----------------------------------|---------------------|
| Indirect manufacturing cost pool | Allocation Rate (₹) |
|----------------------------------|---------------------|

1. Materials handling ₹ 0.60 per part
2. Assembly management ₹ 20.00 per hour of assembly time
3. Machine insertion of parts ₹ 0.35 per machine inserted part
4. Manual insertion of parts ₹ 1.05 per manually inserted part
5. Quality testing ₹ 12.50 per testing hour

Product characteristics of Z2001 and Z2002 are as follows:

| Product                            | Z2001    | Z2002    |
|------------------------------------|----------|----------|
| Direct materials costs             | ₹ 203.75 | ₹ 146.05 |
| Number of parts                    | 43.00    | 23.00    |
| Hours of assembly time             | 2.00     | 1.00     |
| Number of machine – inserted parts | 24.00    | 15.00    |
| Number of manually inserted parts  | 18.00    | 8.00     |
| Hours of quality testing time      | 1.00     | 1.00     |

A foreign competitor has introduced products very similar to Z2001 and Z2002. Given their announced selling prices, to maintain the company's market share and profits. Josaph estimated the Z2001 to have manufacturing cost of approximately ₹ 295 and Z2002 to have a manufacturing cost of approximately ₹ 180. He calls a meeting of product designers and manufacturing personnel at the printer division. They all agreed to have the ₹ 295 and ₹ 180 figures become target costs for designed version of Z2001 and Z2002 respectively. Product designers examine alternative ways of designing printer with comparable performance but lower costs. They come up with the following revised designs for Z2001 and Z2002 (termed Z2001 – REV and Z2002 – REV, respectively)

| Particulars                         | Z2001 – REV | Z2002 – REV |
|-------------------------------------|-------------|-------------|
| Direct materials cost               | ₹ 190.60    | ₹ 131.55    |
| Number of parts                     | 36.00       | 19.00       |
| Hours of assembly time              | 1.00        | 2.00        |
| Number of machine – inserted parts  | 29.00       | 14.00       |
| Number of manually – inserted parts | 6.00        | 5.00        |
| Hours of quality testing time       | 2.00        | 1.00        |

Required:

Compute the present costs of products Z2001 and Z2002 using ABC system.

Compute the manufacturing costs of Z2001 – REV and Z2002 – REV. How do they compare with the ₹ 295 and ₹ 180 target costs? (8 Marks)

(b) What are the limitations of 'Value Chain Analysis'? (6 Marks)

(c) "CPM is a deterministic model. However, PERT is a probabilistic model"-Explain. (2 Marks)

3. (a) Good Producers Ltd. is specialist in the manufacturing of Industrial Products. They manufacture and market three types of products under the name PNM, PNO, PNP. Company produces three products from three basic raw materials in three departments. Company follows budgetary control system. From the following data, they require your assistance to prepare the following for the month of Aug 2012.

(a) Production Budget

(b) Material Usage Budget

(c) Material Purchase Budget

(d) Budgeted Profit/(Loss ) statement for each product

**Budgeted data for Aug 2012**

| Product | Sales (In ₹) | Stock at Aug 1, 2012 (In units) | Department | Production Overhead | Direct Labour Hours | Direct Material | Stock at Aug 1, 2012 (In units) |
|---------|--------------|---------------------------------|------------|---------------------|---------------------|-----------------|---------------------------------|
| PNM     | 46,80,000    | 4,500                           | DMM        | 4,39,875            | 87,975              | MPD             | 36,750                          |
| PNO     | 16,32,000    | 3,000                           | DMO        | 3,76,350            | 1,25,450            | MND             | 30,750                          |
| PNP     | 22,96,000    | 3,750                           | DMP        | 5,15,250            | 85,875              | MOD             | 26,250                          |

The company makes its stock to finished goods on a total cost basis. According to company's anticipation, raw material stock and finished product stock as at 31<sup>st</sup> Aug 2012 will be reduce by 20% and 10% respectively.

Fixed production overhead is absorbed on a direct labour hour basis.

It is expected that there will be no work-in-progress at the beginning or end of the month.

Administration cost is absorbed by products at a rate of 40% of production cost and selling and distribution cost is absorbed by products at a rate of 20% production cost.

Profit is budgeted as a 25% of total cost.

Standard cost data per unit of product:

| Direct Material |                | Product |       |       |
|-----------------|----------------|---------|-------|-------|
|                 | Price per unit | PNM     | PNO   | PNP   |
|                 | ₹              | Units   | Units | Units |
| MPD             | 3              | 8       | -     | 18    |
| MND             | 6              | -       | 15    | 14    |
| MOD             | 2              | 8       | 8     | -     |

| Direct Wages: | Rate per Hour | Hrs | Hrs | Hrs |
|---------------|---------------|-----|-----|-----|
| DMM           | 4             | 6   | 3   | 3   |
| DMO           | 3             | 9   | 3   | 4   |
| DMP           | 2             | 3   | 6   | 9   |

|                                  | Product |     |     |
|----------------------------------|---------|-----|-----|
|                                  | PNM     | PNO | PNP |
| Other Variable Cost per unit (₹) | 28      | 41  | 19  |

(12 Marks)

- (b) Explain Skimming pricing strategy.

(4 Marks)

4. (a) You are required to solve following linear programming problem.

$$\text{Minimize } Z = 30x_1 + 40x_2$$

Subject to the constraints

$$10x_1 + 15x_2 \geq 450$$

$$20x_1 + 15x_2 \geq 600$$

$$x_1, x_2 \geq 0$$

(12 Marks)

- (b) Explain following statement.

“Overhead variances should be viewed as interdependent rather than independent”.

(4 Marks)

5. (a) A company manufactures two products X and Y. Product X requires 4 hours to produce while Y requires 6 hours. In Jun, 2012, of 26 effective working days of 8 hours a day, 600 units of X and 400 units of Y were produced. The company employs 20 workers in production department to produce X and Y. The budgeted hours are 36,000 for the year.

- Calculate Capacity, Activity and Efficiency ratio. (6 Marks)
- (b) Give name of Cost Reduction Tools & Techniques. (4 Marks)
- (c) Is it justifiable to sell at a price below marginal cost at any time? Mention any two circumstances in which it is justifiable. (2 Marks)
- (d) Explain following -
- 'Going rate pricing' (2 Marks)
- 'Throughput Accounting (TA)' (2 Marks)
6. (a) A company following standard costing system has the following information for the quarter ending 30th June, 2012:
- |                    |                         |             |
|--------------------|-------------------------|-------------|
| Material purchased | 12,000 pieces at ₹ 1.32 | ₹ 15,840.00 |
| Materials consumed | 11,400 pieces at ₹1.32  | ₹ 15,048.00 |
| Actual wages paid  | 2,970 hours at ₹ 4.20   | ₹12,474.00  |
- Actual factory expenses incurred ₹ 20,400 (Budgeted ₹ 19,800)
- Units produced: 1,080 units and sold at ₹ 72 per unit
- The standard rates and prices are as under:
- Direct materials ₹ 1.20 per unit
- Standard input 12 pieces per unit
- Direct labour rate ₹ 3.60 per hour
- Standard requirement 3.00 hours per unit
- Overheads ₹ 7.20 per labour hour
- You are required to:
- (a) Calculate Material Price Variance, Material Usage Variance, Labour Rate Variance, Labour Efficiency Variance, Overhead Efficiency Variance, Overhead Capacity Variance, Overhead Expense Variance.
- (b) Prepare Journal Entries for recording the above transactions & variances.
- (c) Prepare Material Control Account & Work in Progress Control Account.
- (12 Marks)
- (b) "Transfer pricing is a widely debated and contested topic" – Discuss. (4 Marks)
7. (a) 'Fine Egg Products' a retail shop deals in a perishable commodity. The daily demand and supply are variables. The data for the past 50 weeks show the following demand and supply:

| Supply            |             | Demand      |             |
|-------------------|-------------|-------------|-------------|
| Availability (Kg) | No. of days | Demand (Kg) | No. of days |
| 5                 | 20          | 5           | 25          |
| 10                | 25          | 10          | 55          |
| 15                | 95          | 15          | 100         |
| 20                | 75          | 20          | 50          |
| 25                | 35          | 25          | 20          |

The retail shop buys the commodity at ₹10 per kg and sells it at ₹15 per kg. Any commodity remains at the end of the day, has no saleable value. Moreover, the loss (unearned profit) on any unsatisfied demand is ₹4 per kg. 'Fine Egg Products' retail shop opens five days in a week.

Given the following pair of random numbers, simulate 5 days sales, demand and profit.

(32, 20); (65, 85); (17, 35); (07, 33) (45, 80)

The first random number in the pair is for supply and the second random number is for demand viz. in the first pair (32, 20), use 32 to simulate supply and 20 to simulate demand.

(10 Marks)

- (b) Discuss the application of the learning curve. (2 Marks)
- (c) Enumerate the factors involved in decisions relating to expansion of capacity. (2 Marks)
- (d) Explain term 'FOB factory pricing'. (2 Marks)