Paper 8 – Cost Accounting
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Full Marks: 100

Time allowed: 3 hours

Question No 1 is Compulsory.

Answer any five Questions from the rest.

Working Notes should form part of the answer.

1. (a) Match the statement in Column I with the most appropriate statement in Column II:

<table>
<thead>
<tr>
<th>Column I</th>
<th>Column II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Variance Analysis</td>
<td>A. Master Budget</td>
</tr>
<tr>
<td>2. Royalties</td>
<td>B. Income credited only in cost accounts</td>
</tr>
<tr>
<td>3. The summary of all functional budgets</td>
<td>C. Costing profit and loss Account</td>
</tr>
<tr>
<td>4. Notional rent charged to</td>
<td>D. Direct allocation</td>
</tr>
<tr>
<td>5. Abnormal loss is transferred to</td>
<td>E. Management by Exception</td>
</tr>
</tbody>
</table>

(b) Choose the correct answer from the given four alternatives:

(i) What will be the accounting entry for absorption of factory overhead?
   A. Dr. Works in progress control A/c
      Cr. Factory overhead control A/c
   B. Dr. Factory overhead
      Cr. Factory overhead control A/c
   C. No entry is required
   D. Dr. Works in progress control A/c
      Cr. Factory overhead control A/c

(ii) Standard price of material per kg ₹ 20, standards consumption per unit of production is 5 kg. Standard material cost for producing 100 units is
   A. ₹ 20,000
   B. ₹ 12,000
   C. ₹ 8,000
   D. ₹ 10,000

(iii) Directors remuneration and expenses form a part of
   A. Production overhead
   B. Administration overhead
   C. Selling overhead
   D. Distribution overhead

(iv) In which of the following incentive plan of payment, wages on time basis are not guaranteed?
   A. Halsey plan
   B. Rowan plan
   C. Taylor’s differential piece rate system
D. Gantt’s task and bonus system

(v) Continuous stock taking is a part of
   A. ABC analysis
   B. Annual stock taking
   C. Perpetual Inventory
   D. None of these

(vi) In a process 8000 units are introduced during a period. 5% of input is normal loss. Closing work in progress 60% complete is 1000 units. 6600 completed units are transferred to next process. Equivalent production for the period is:
   A. 9000 units
   B. 7440 units
   C. 5400 units
   D. 7200 units

(vii) Royalty paid on sales ₹89,000 and Software development charges related to product is ₹22,000. Calculate Direct Expenses.
   A. ₹1,11,100
   B. ₹1,11,000
   C. ₹1,11,110
   D. ₹1,10,000

(viii) CAS 13 stands for
   A. Joint Cost
   B. Interest and financing charges
   C. Employee Cost
   D. Cost of Service cost centre

(ix) Which of the following items is not included in preparation of cost sheet?
   A. Carriage inward
   B. Purchase returns
   C. Sales commission
   D. Interest paid

(x) Cost Price is not fixed in case of
   A. Cost plus contracts
   B. Escalation clause
   C. De escalation clause
   D. All of the above

(c) Fill in the blanks.  

(i) Statement of cost per unit of equivalent production shows the per unit cost ________.

(ii) Direct Expenses incurred for brought out resources shall be determined at ________.

(iii) The ________ product generally has a greater sale value than by product.

(iv) Cost of normal idea time is charged to ________.

(v) The ________ is usually the coordinator of the standards committee.
(d) State whether the following statements are TRUE or FALSE. \[1 \times 5 = 5\]

(i) Closing stock of work-in-progress should be valued on the basis of prime cost.
(ii) Marginal Costing follows the behaviours wise classification of costs.
(iii) Cost control accounts are prepared on the basis of double entry system.
(iv) Excess of Actual cost over Standards Cost is treated as unfavorable variance.
(v) Slow moving materials have a high turnover ratio.

2. a) Distinguish between fixed budget and flexible budget. \[5\]

(b) Calculate the variances from the following:

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>ACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>INPUT</td>
<td>MATERIAL</td>
</tr>
<tr>
<td>400</td>
<td>A</td>
</tr>
<tr>
<td>200</td>
<td>B</td>
</tr>
<tr>
<td>100</td>
<td>c</td>
</tr>
<tr>
<td>700</td>
<td></td>
</tr>
<tr>
<td>LABOUR HOURS</td>
<td>LABOUR HOURS</td>
</tr>
<tr>
<td>100 @ ₹ 2 PER HOUR</td>
<td>200</td>
</tr>
<tr>
<td>200 woman @ ₹ 1.50</td>
<td>300</td>
</tr>
<tr>
<td>25 Normal loss</td>
<td>75 Actual loss</td>
</tr>
<tr>
<td>675</td>
<td>26,000</td>
</tr>
</tbody>
</table>

3. (a) Present the following information to show to management:

(i) The marginal product cost and the contribution p.u.
(ii) The total contribution and profits resulting from each of the following sales mix results.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Product</th>
<th>Per unit ₹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Materials</td>
<td>A</td>
<td>10</td>
</tr>
<tr>
<td>Direct Materials</td>
<td>B</td>
<td>9</td>
</tr>
<tr>
<td>Direct wages</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>Direct wages</td>
<td>B</td>
<td>2</td>
</tr>
</tbody>
</table>

Fixed Expenses – ₹ 800
(Variable expenses are allotted to products at 100% Direct Wages)
Sales Price ---- A ₹ 20
Sales Price ---- B ₹ 15
Sales Mixtures:
(a) 100 units of Product A and 200 of B.
(b) 150 units of Product A and 150 of B.
(c) 200 units of Product A and 100 of B. \[10\]

(b) Explain the factors to be considered in preparing Sales Budget. \[5\]

4. (a) Distinguish between Financial Accounting and Cost accounting. \[7\]

(b) In a tailoring shop the standard output of a tailor making collars of a shirt is 20 units per hour for an 8 hour shift. The output of Tailor X for one week is as under:
You are required to calculate the earnings of Tailor X for the week under:

(i) Halsey Premium Plan with a guaranteed wage rate of ₹10 per hour and a premium of 60% of the time saved over standard. [4]

(ii) Taylor Differential Rate system with the following rates of payment: ₹ 0.50 per unit at standard and up to 20% over standard, ₹ 0.40 per unit at production below standard and ₹0.60 per unit when daily output exceeds standard by 20%. [4]

5. (a) From the following information, calculate the machine hour rate for recovery of overhead for a drilling machine installed in a machine shop.

(i) The machine operates for 8 hours a day and 300 days a year.

(ii) 400 hours of machine time in a year is used for repairs and maintenance.

(iii) Setting up time of the machine is 200 hours per annum and is to be treated as production time.

(iv) Annual cost of repairs and maintenance of the machine is ₹40,000.

(v) Power used is 10 units per hour at a cost of ₹ 8 per unit. No power is consumed during repair and setting up time.

(vi) A coolant is used to operate the machine at ₹12,000 per annum.

(vii) An operator, whose monthly wages is ₹8,000, devotes 75% of his time exclusively to operate the machine.

(viii) Depreciation is ₹2,40,000 per annum and insurance is ₹ 25,000 per annum.

(ix) Other indirect expenses chargeable to the machine are ₹12,000 per month. [8]

(b) PC Company purchases a specialized item and the quantity to be purchased is 2,500 pieces at a price of ₹ 200 per piece. Ordering cost per order is ₹ 200 and carrying cost is 2% per year of the inventory cost. Normal lead time is 20 days and safety stock is nil. Assume yearly working days as 250.

(i) Calculate the Economic Ordering Quantity.

(ii) Re-order Inventory Level.

(iii) If a 2% discount on price is given for order quantity 1,250 pieces or more in a lot, should the company accept the offer of discount? [2+2+3]

6. (a) A pharmaceutical drug manufacturing company’s three products A, B and C emerge at a single split off stage in department P. Product A is further processed in department Q, product B in department R and product A and product C in department S. There is no loss in further Processing of any of the three products. The cost data for a month are as under:
Cost of raw materials introduced in Department P \[\text{₹ 12,68,800}\]

Direct Wages Department \[\text{₹}\]

\begin{tabular}{lll}
Department & P & Q & R & S \\
\hline
Amount & 3,84,000 & 96,000 & 64,000 & 36,000 \\
\end{tabular}

Factory overheads of \text{₹ 4,64,000} are to be apportioned to the departments on direct wage basis.

During the month under reference, the company sold all three products after processing them further as under:

<table>
<thead>
<tr>
<th>Products</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output sold kg.</td>
<td>44,000</td>
<td>40,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Selling price per kg</td>
<td>32</td>
<td>24</td>
<td>16</td>
</tr>
</tbody>
</table>

There are no Opening or Closing Stocks if these products were sold at the split off stage, that is, without further processing, the selling prices would have been \text{₹ 20}, \text{₹ 22} and \text{₹ 10} each per kg respectively for A, B and C.

**Required:**

(i) Prepare a statement showing the apportionment of joint costs to joint products:

(ii) Present a statement showing product-wise and total profit for the month under reference as per the company’s current processing policy.

(iii) What processing decision should have been taken to improve the profitability of the company?

(iv) Calculate the product-wise and total profit arising from your recommendation in (iii) above. \[3+3+2+3\]

(b) Write a short note on the following, with reference to contract accounting.

(i) Surveyor’s Certificate and Retention Money

(ii) Escalation Clause \[2+2\]

7. (a) X Ltd. provides you the following figures for the year 2015-16:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Amount (₹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Material</td>
<td>3,20,000</td>
</tr>
<tr>
<td>Direct Wages</td>
<td>8,00,000</td>
</tr>
<tr>
<td>Production Overheads (25% variable)</td>
<td>4,80,000</td>
</tr>
<tr>
<td>Administration Overheads (75% Fixed)</td>
<td>1,60,000</td>
</tr>
<tr>
<td>Selling and Distribution Overheads (2/3 rd Fixed)</td>
<td>2,40,000</td>
</tr>
<tr>
<td>Sales @ ₹ 125 per unit</td>
<td>25,00,000</td>
</tr>
</tbody>
</table>

For the year 2016-17, it is estimated that:

1. Output and sales quantity will increase by 20% by incurring additional Advertisement Expenses of \text{₹ 45,200}.
2. Material prices will go up by 10%.
3. Wage Rate will go up by 5% along with, increase in overall direct labour efficiency by 12%.
4. Variable Overheads will increase by 5%.
5. Fixed Production Overheads will increase by 33 1/3 %.
Required:
   a) Calculate the Cost of Sales for the year 2015-16 and 2016-17.
   b) Find out the new selling price for the year 2016-2017.
      (i) If the same amount of profit is to be earned as in 2015-16.
      (ii) If the same percentage of profit to sales is to be earned as in 2015-16.
      (iii) If the existing percentage of profit to sales is to be increased by 25%.
      (iv) If profit per unit ₹ 10 is to be earned.  

(b) Distinguish between Job Costing and Contract costing. 

8. Write Short note on the following (any three)  
   (a) Advantages of Budgetary Control 
   (b) ABC Analysis 
   (c) The reasons for difference in profit as per financial accounts and cost accounts 
   (d) Essential pre-requisites and advantages of integrated accounting system 
   (e) Time and Motion Study