The figures in the margin on the right side indicate full marks.

**Question No. 1** is compulsory and Answer any five from the rest.

Working notes should form part of your answer.

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

   **Column I**
   
   (i) ABC Analysis  
   (ii) Split-off Point  
   (iii) Flex Method  
   (iv) Variance Analysis  
   (v) Stepped Cost  

   **Column II**
   
   (A) Management by Exception  
   (B) Supervisor’s Salary  
   (C) Selective Control of Inventory  
   (D) Measurement of Labour Turn-over  
   (E) Tool in Finance Management  
   (F) Joint Products  
   (G) Decision Making  
   (H) Evaluation of a job  

   \[1 \times 5 = 5\]

(b) State whether the following statements are ‘True’ or ‘False’:

(i) Uniform Costing is not a distinct method of Costing. \[1 \times 5 = 5\]

(ii) Under the Integrated System, records are maintained separately for Cost and Financial accounts.

(iii) The year-end inventory of Finished Goods under Absorption Costing is valued at Total Cost.

(iv) Budgeting is one such technique that helps in Planning as well as in Controlling.

(v) Standard Costing is determined even before the commencement of Production.

(c) Fill in the blanks suitably:

(i) The Objective of Wage Incentives is to improve __________.

(ii) Equivalent Production represents the Production of a process in terms of __________ units.

(iii) In order to protect the contractor from the risk of the rise in the price, an __________ clause may be inserted in the contract.

(iv) The term ‘By-Products’ is sometimes used synonymously with the term ‘__________’.

(v) In ‘make or buy’ decisions, it is profitable to buy from outside only when the Supplier’s price is below the firm’s own __________.

   \[1 \times 5 = 5\]

(d) In the following cases, one out of the four answers is correct. You are required to indicate the correct answer (= 1 mark) and give brief workings (= 1 mark):

(i) The P/V ratio of Delta Ltd., is 50% and the MOS is 40%. The company sold 500 units for ₹ 5,00,000. Calculate BEP.

   \[(a) \ 500 \text{ units} \quad (b) \ 300 \text{ units} \quad (c) \ 400 \text{ units} \quad (d) \ None \text{ of these}\]

(ii) When material used in production being 1,000 units @ ₹ 5 per unit of which 100 units scraped is sold @ ₹ 0.50 per unit after incurring additional cost of ₹ 200, the effective cost per unit will be

   \[(a) \ ₹ 6.00 \quad (b) \ ₹ 5.60 \quad (c) \ ₹ 5.72 \quad (d) \ ₹ 5.90\]

(iii) A company buys in lots of 6,250 units, which is a 3 months supply. The cost/unit is ₹ 2.40. Each order costs ₹ 45 and the inventory carrying cost is 15% of the average inventory value. Calculate the EOQ.

   \[(a) \ 3,000 \text{ units} \quad (b) \ 2,000 \text{ units} \quad (c) \ 2,500 \text{ units} \quad (d) \ None \text{ of these}\]

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(iv) Product Z has a P/V ratio of 28%. Fixed operating costs directly attributable to Product Z during the Quarter II of the financial year will be ₹ 2,80,000.

Calculate the Sales Revenue required to achieve a quarterly profit of ₹ 70,000.

(a) ₹ 10 Lakhs  (c) ₹ 15 Lakhs  
(b) ₹ 12.50 Lakhs  (d) None of these

(v) X executes a piece of work in 120 hrs. as against 150 hrs. allowed to him. His hourly rate is ₹ 10 and he gets a Dearness Allowance of ₹ 30 per day of 8 hrs. worked in addition to his wages.

You are required to calculate the Total Wages Payable under the Rowan Premium Plan.

(a) ₹ 1,890  (c) ₹ 1,900  
(b) ₹ 2,000  (d) None of these

2. (a) M/s. J Stone & Co. Ltd. prepares budgets for a production and sales for 3,00,000 units. The variable cost is ₹ 28 per unit and fixed costs are ₹ 12,00,000. The company fixes its selling price to fetch a profit of 20% on sales.

You are required to find out the following:

(i) Ascertain Break-even point in units.
(ii) Ascertain P/V ratio.
(iii) If the selling price is reduced by 10%, how will it effect the BEP?
(iv) If the company wants to earn a profit of 10% more than the budgeted profit, what should be the sales at reduced price?

(b) What are the limitations of zero-based budgeting?

3. (a) Dynamic division of Star Co. Ltd. is a profit centre producing product X, Y and Z which have external market for sale. The following data are available in the year 2012.

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market price</td>
<td>₹ 200</td>
<td>₹ 150</td>
<td>₹ 130</td>
</tr>
<tr>
<td>Variable cost per unit</td>
<td>₹ 150</td>
<td>₹ 130</td>
<td>₹ 120</td>
</tr>
<tr>
<td>Machine hour per unit required</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Product X may be transferred to smart division of the concern and the maximum quantity is 1000 units.

Expected maximum demand in the external market are:

- X: 2000 units
- Y: 1500 units
- Z: 900 units

Total hours available in Dynamic division is 21,000. Product X is also available from outside market at ₹ 150. Compute the transfer price of product X and advise.

(b) State the objectives of transfer pricing.

4. (a) X Co. is currently selling three products A, B and C. Due to recession, the management is forced to lower selling price of all the three products. In a particular year, product B is sold below its total cost and the management wants not to manufacture product B. The following data are available for the year:

<table>
<thead>
<tr>
<th></th>
<th>Product A</th>
<th>Product B</th>
<th>Product C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production and sale</td>
<td>20000 units</td>
<td>16000 units</td>
<td>12000 units</td>
</tr>
<tr>
<td>Selling price per unit</td>
<td>₹ 25</td>
<td>₹ 22</td>
<td>₹ 18</td>
</tr>
<tr>
<td>Total cost per units ( ₹ )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct materials</td>
<td>10</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Direct labours</td>
<td>8</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Variable overhead</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Fixed overhead (total ₹ 53,400 apportioned on the basis of the total sales value)</td>
<td>1.25</td>
<td>1.10</td>
<td>0.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Product A</th>
<th>Product B</th>
<th>Product C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cost per unit</td>
<td>24.25</td>
<td>22.10</td>
<td>14.90</td>
</tr>
</tbody>
</table>
Advise: the management taking into account the following further information:

(a) Discontinuance of the manufacture of product B will not affect the total fixed cost i.e. total fixed cost will remain the same.

(b) The capacity released from discontinuance of product B can not be used for any other purpose.

(b) State the uses of marginal costing technique in decision making process.

5. (a) The unit X of P. Co. Ltd. having a strength of 20 workers, planned for 290 working days per year of 8 hours per day with half an hour break. Based on the earlier year's trend, it is forecasted that average absenteeism per worker would be 10 days, in addition to the eligibility of 30 days annual leave. The budgeted overhead related to the unit for the year amounted of ₹ 75,000 and the units follows a system of recovering overhead on the basis of direct labour hours.

The actual overhead during the year amounted to ₹ 71,200 and the following details regarding actual working of the unit are available:

(i) The factory worked 3 extra days to meet the production target but one additional paid holiday had to be declared.

(ii) There was a severe break down of a major equipment leading to a loss of 350 man-hours.

(iii) The total overtime hours (in addition to 3 extra working days) amounted to 680 hours.

(iv) The actual average absenteeism per worker was 12 days.

From the above data relating to production unit X, work out the under or over recovery of overhead during the period under review.

(b) State the circumstances when direct or chargeable expenses are treated as overhead.

6. (a) A transport service operated by M/s. Sky Transport Limited with four buses between two towns which are 50 kilometers apart. Seating capacity of each bus is for 50 passengers. The following details are obtained from their books for March 2014:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Amount (₹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drivers Wages</td>
<td>1,50,000</td>
</tr>
<tr>
<td>Wages of Conductors and Cleaners</td>
<td>1,10,000</td>
</tr>
<tr>
<td>Diesel Oil Expenses</td>
<td>3,50,000</td>
</tr>
<tr>
<td>Lubricant and Other Oil</td>
<td>40,000</td>
</tr>
<tr>
<td>Repairs and Maintenance</td>
<td>1,00,000</td>
</tr>
<tr>
<td>Taxes and Insurance etc.</td>
<td>1,60,000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>2,00,000</td>
</tr>
<tr>
<td>Interest and Other Expenses</td>
<td>1,50,000</td>
</tr>
<tr>
<td>Salaries of Office Staff</td>
<td>1,00,000</td>
</tr>
</tbody>
</table>

Passengers carried were 75% of seating capacity. All four buses ran on all days of the month. Each bus made one trip per day.

Find out the cost per passenger kilometer.

(b) Classify the following overhead items according to function:


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7. (a) From the following particulars furnished by M/s. Young & Co. Ltd., find out the (i) Material Cost Variance, (ii) Material Usage Variance, and (iii) Material Price Variance.

- Quantity of Material Purchased: 3000 units
- Value of Materials Purchased: ₹ 12,000
- Standard quantity of materials required per tonne of finished product: 25 units
- Standard Rate of Material: ₹ 2 per unit
- Opening Stock of Material: Nil
- Closing Stock of Material: 500 units
- Finished products during the period: 80 kg

(b) What are the advantages of cost plus contract?

8. Write short notes on any three of the following:
   (i) Just-in-Time Inventory.
   (ii) Retention money in contract costing.
   (iii) Limitations of Inter-firm comparison.
   (iv) Objectives of uniform costing.
   (v) Benefits of Time and Motion study.