Note: Attempt all question.

SECTION A

Qus1: Attempt any four parts:

1. What are the objectives of standard costing?
2. At what annual interest rate will be Rs 10,000 invested today be worth Rs 20,000 in 8 years?
3. What is continuous compounding?
4. Discuss the scope of Engineering Economics.
5. What do you understand by cost benefit analysis?
6. What is Coe effective analysis?

4x2.5=10

SECTION B

Qus2: Attempt any four parts:

1. Why does time value of money exists? Give reasons.
2. Define Break-even point and how is it computed?
3. Explain the merits and demerits of Pay Back Period.
4. Find out the compound interest on Rs 6000 for 3 years at 9% compounded semi annually.
5. What are the prime objectives of providing depreciation?
6. If the Actual sales of a firm are Rs 85000 and Break-even sales are Rs 55000, calculate the Margin of safety.

4x2.5=10

SECTION C
Qus3: Attempt any two parts:

1. Explain the following two methods used in measuring the worth of investments:
   (a) Internal Rate of Return
   (b) Net Present Worth

2. The production of a certain unit requires 80 kgs. of a material costing Rs 3 per kg. On completion of the production of a unit it was found that 75 kgs. of a material costing Rs. 3.50 per kg. has been consumed. Calculate the material variances.

3. Consider the following two mutually exclusive alternatives

<table>
<thead>
<tr>
<th>Alternative</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>Rs. 4000</td>
<td>Rs. 6000</td>
</tr>
<tr>
<td>Uniform annual benefit</td>
<td>Rs. 640</td>
<td>Rs. 960</td>
</tr>
<tr>
<td>Useful life (Years)</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

Using a 15% interest rate, determine which alternative should be selected based on the future worth method of comparison.

SECTION D

Qus4: Attempt any two parts:

1. What factors should be considered by the management while evaluating a project other than profitability?

2. What is process costing and what are its features? For which kind of industries is process costing suitable?

3. A company has purchased a bus for its officers for Rs. 10,00,000. The expected life of the bus is eight years. The salvage value of the bus at the end of its life is Rs.150000. Calculate:-

(a) Depreciation at the end of the third and fifth year
(b) Book value at the end of the second and sixth year
Qus5: Attempt any two parts:

1. A person needs a sum of Rs. 2,00,000 for this daughter's marriage which will take place 15 years from now. Find the amount of money that he should deposit now in bank if the bank gives 18% interest, compounded annually.

2. Consider the following data of a company for the year 2000:

   Sales = Rs. 80000
   Fixed Cost = Rs 15000
   Variable Cost = Rs 35000

   Find the following:-
   (a) Contribution
   (b) BEP
   (c) Profit

3. Give practical applications of various interest formulas with the help of suitable examples.