1 Explain the following terms : (any five) 10
   (a) Optimum portfolio
   (b) Diversification
   (c) Hedging
   (d) American option
   (e) Open interest
   (f) Risk
   (g) Beta
   (h) In-the-money option.

2 What is portfolio management ? Discuss in detail the following stages in the process of portfolio management : 13
   (i) Security Analysis
   (ii) Portfolio Analysis

OR

2 (a) Explain systematic risk. 7
(b) Given below are the returns of Company and Market Index for a five year period. Calculate Beta and Alpha.

<table>
<thead>
<tr>
<th>Return on Company</th>
<th>0.2</th>
<th>0.3</th>
<th>0.5</th>
<th>0.4</th>
<th>0.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Market Index</td>
<td>0.1</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
</tr>
</tbody>
</table>
3 (a) Explain pay-offs involved in options from the point of view of writer of call and put option.
(b) Discuss settlement of option contracts.

OR

3 (a) Find portfolio variance of a portfolio consisting of equities, bonds and real estate, if the portfolio weights are 35%, 30% and 35%. The standard deviations are 0.0716, 0.1689 and 0.0345 respectively. The correlations are 0.25 for equity and bond, 0.40 for equity and real estate, and 0.30 for bonds and real estate. Also find portfolio expected return if the expected rate of return for equity, bonds and real estate are 0.15, 0.07 and 0.09 respectively.
(b) Discuss the contract specification for stock options.

4 Write short notes : (any two)
(a) Factors affecting option premium
(b) Markowitz model
(c) Hedging using stock index futures.