Fellowship

EXAMINATION QUESTION PAPERS

NOV 2008

भारतीय बीमा संस्थान
INSURANCE INSTITUTE OF INDIA
Universal Insurance Building,
Sir P. M. Road, Fort,
Mumbai - 400 001.
FELLOWSHIP EXAMINATION
MATHEMATICAL BASIS OF LIFE ASSURANCE

Time: 3 Hours] [Total Marks: 100

Answer any FIVE questions only.
All questions carry 20 marks each.

1. a) A person plans to deposit into a fund a sum of Rs. 40,000 on every 1st January from 1-1-2009 to 1-1-2014 (both inclusive). The fund allows simple interest at 4% p.a. Calculate the amount in the fund to the credit of the person on 31-12-2018.

b) Find the effective rate of interest per annum, correct to two decimal places, corresponding to:
   i) a nominal rate of interest of 4% per half-year convertible two times in a half-year.
   ii) a nominal rate of interest of 10.5% per annum convertible once in two years.
   iii) a nominal rate of discount of 10% per annum convertible half-yearly.
   iv) an effective rate of discount of 2% per quarter.

c) A person is entitled to receive three sums, namely, Rs. 20,000, Rs. 25,000 and Rs. 14,500 at the end of 8 years, 14 years and 17 years from now respectively. Calculate the total present value of these sums, assuming effective rate of interest of 8% p.a. for the first 5 years, nominal rate of interest of 6% p.a. convertible half-yearly for the next 6 years and effective rate of interest of 3% p.a. thereafter.

Given:

\[ v^5 \text{ at } 8\% = 0.68058 \quad v^3 \text{ at } 3\% = 0.91514 \]
\[ v^6 \text{ at } 3\% = 0.83748 \]

2. a) A loan was repaid over 3 years on payment of yearly instalment of Rs. 3,741. The interest charged is 6% p.a.

i) Find the amount of loan.

ii) Immediately after payment of the 2nd instalment, find the outstanding loan.

iii) Find the total amount of interest paid.

Given: \[ v^3 \text{ at } 6\% = 0.839619 \]
b) Three cards are drawn simultaneously at random from a pack of cards. What is the probability that:
   i) At least one is an ace
   ii) At least two are black
   iii) None is an eight.

c) In how many ways can a 5 digit number containing non repetitive digits be formed such that the number comprises of alternating odd and even digits.

3. a) Given: \( q_{40} = 0.008022, \quad q_{41} = 0.009009 \), \( q_{42} = 0.010112 \) and \( i = 0.04 \)

Evaluate:
   i) \( A_{40:3} \) correct to 3 decimal places
   ii) \( A_{40:3} \), correct to 5 decimal places

b) A life office issues a special policy on the life of a person aged 35 for a sum assured of Rs. 80,000 payable on survival to age 60 or on death, if earlier. Further, on survival to age 60, the policy provides for a whole life assurance of Rs. 40,000 payable on death at any time after age 60. Annual premiums are payable for 25 years or till earlier death.

Calculate the office annual premium taking into account expense loading as under. First year Rs. 600 plus 70% of the premium, Renewal Rs. 60 plus 7% of the premium.

Given:

<table>
<thead>
<tr>
<th>X</th>
<th>Dx</th>
<th>Nx</th>
<th>Mx</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>2507.40</td>
<td>52663.13</td>
<td>481.90</td>
</tr>
<tr>
<td>60</td>
<td>882.85</td>
<td>12477.80</td>
<td>402.93</td>
</tr>
</tbody>
</table>

4. a) Calculate the net single premium for a life aged 40 on a Special endowment assurance policy of sum assured Rs. 50,000, where on death during the term of 15 years the sum assured is payable and on maturity twice the single premium is paid.
b) Calculate the net annual premium for a life aged 50, for a special whole life policy of sum assured 1 lakh, where sum assured is payable on:
   i) death during the premium payment term of 10 years or
   ii) Survival to the end of the premium paying term and twice the sum assured payable on death after the premium paying term.

c) Calculate the net single premium for a life aged 45 on a special cash back plan of sum assured Rs. 40,000 where:
   i) On survival, 50% of the sum assured is payable each at the end of 10 yrs. and at the end of the term of 15 years.
   ii) Return of premium on death during the term of the policy.

Given:

\[ M_{40} = 1598.1679 \quad D_{40} = 9353.5601 \quad N_{50} = 66676.968 \]
\[ M_{45} = 1503.7177 \quad D_{45} = 6904.9981 \quad N_{60} = 28268.269 \]
\[ M_{50} = 1393.4551 \quad D_{55} = 3660.5858 \]
\[ M_{55} = 1258.3191 \quad D_{60} = 2597.8808 \]
\[ M_{60} = 1104.5519 \]

\[ \frac{\binom{n+1}{C_T} \cdot n \cdot p_{T-1}}{(n+1) \cdot p_T \cdot n \cdot C_{T-1}} = 1/\tau \]

5. a) What are the lives usually excluded from the experience in the investigation of mortality of assured lives from life office data. Briefly give reasons for their exclusions.

b) Applying the census method to life office data, calculate the mortality rates at ages 51 and 52 from the following data:

<table>
<thead>
<tr>
<th>Age last birth day</th>
<th>No. of policies in force as on 1.4.2007</th>
<th>No. of policies in force as on 1.4.2008</th>
<th>No. of deaths at last birth day during 1.4.2007 to 1.4.2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>31938</td>
<td>32065</td>
<td>319</td>
</tr>
<tr>
<td>52</td>
<td>29971</td>
<td>30242</td>
<td>332</td>
</tr>
</tbody>
</table>
c) - From the table given below calculate:

\[ l_{[52]} \quad l_{[50]+1} \quad l_{[51]} \quad 2\overline{r}_{[50]+1} \]

Correct to 5 decimal places.

<table>
<thead>
<tr>
<th>Age at Entry [x]</th>
<th>(l[x])</th>
<th>(l[x]+1)</th>
<th>(l[x]+2)</th>
<th>Attained age (x+2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>583229</td>
<td>582113</td>
<td>580915</td>
<td>52</td>
</tr>
<tr>
<td>51</td>
<td>582034</td>
<td>580896</td>
<td>579671</td>
<td>53</td>
</tr>
<tr>
<td>52</td>
<td>580814</td>
<td>579650</td>
<td>578393</td>
<td>54</td>
</tr>
</tbody>
</table>

6. a) Explain by general reasoning the relation: \(A_x = 1 - d \bar{a}_x\)  

b) i) **Given:** \(a_{50} = 16.444\), \(a_{60} = 13.134\), \(v^{10} = 0.675564\),  

\[ l_{50} = 9712 \quad \text{and} \quad l_{60} = 9287 \]

**Calculate:** \(\bar{a}_{50.\overline{4}}\) correct to 3 decimal places.

ii) **Given:** \(A_{40} = 0.23956\), \(A_{60} = 0.45640\),  

\[ V^{10} = 0.456387 \quad l_{40} = 9287 \quad l_{40} = 9856 \]

**Calculate:** \(A_{40.\overline{20}}\) correct to 5 decimal places.

40:20

c) Calculate office single premium for an immediate annuity policy providing an annuity of Rs. 12,000 per annum, payable yearly in arrear for 5 years certain and thereafter during the life time of a person now aged 65. Provide for initial expense of Rs. 5 per thousand of single premium and 3% of the annuity payments.

**Given:** \(V^3 = 0.82193\), \(l_{65} = 8821\),  

\[ l_{70} = 8054 \quad \text{and} \quad a_{70} = 9.375 \]
7. Fill up the blanks in the following portion of a life table.

<table>
<thead>
<tr>
<th>Age $x$</th>
<th>$I_x$</th>
<th>$d_x$</th>
<th>$q_x$</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td></td>
<td>982</td>
<td>0.00245</td>
</tr>
<tr>
<td>41</td>
<td></td>
<td>1021</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td></td>
<td></td>
<td>0.00272</td>
</tr>
<tr>
<td>43</td>
<td></td>
<td>1161</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td></td>
<td>1269</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>395298</td>
<td>1384</td>
<td></td>
</tr>
</tbody>
</table>

(Decimals in $I_x$, $d_x$ may be rounded off and $q_x$ to be given to 5 decimal places)

b) 1000 members all aged 50 create a fund to which each contribute Rs. 1,000 at the beginning of each year as long as they are alive. On death of any member Rs. 20,000 is paid from the fund. The Fund was wound up after 10 years and the balance was equally distributed to all survivors. Find the expected amount each survivor would get if the fund earns 6% on its assets, assuming no expenses.

**Given:**

- $D_{60} = 2597.8808$
- $N_{60} = 28268.269$
- $M_{60} = 1104.5519$
- $N_{50} = 66676.968$
- $M_{50} = 1393.4551$

8. Write short notes on:

   a) Actuarial valuation of policy liabilities
   b) Reserve for revival of lapsed policies
   c) Ultimate and aggregate tables of mortality rates.

--- END ---
FELLOWSHIP EXAMINATION
STATISTICS

Time: 3 Hours] [Total Marks : 100

Answer any FIVE questions only.
All questions carry 20 marks each.

(An extract from the table of areas of the standard normal curve
between 0 and x is given at the end)

1. a) X chooses at random an integer from 1 to 9 (both inclusive), without
knowing X's choice, Y chooses an integer from 1 to 9. What is the
probability that the two numbers chosen do not differ by (i) more than
4 (ii) more than 5?
b) Two dice, each numbered 1 to 6 are rolled. What is the probability
that the sum of numbers appearing on upper face is multiple of 4?

2. a) In a village, total of 2010 farms were being studied for cultivation of
rice. The farms were stratified into 7 strata, according to farm size. It
was decided to select a sample of 150 farms from this population.
Table below gives available data, where \( \sigma_i \) is std. deviation per
stratum. Calculate sample size per stratum, by method of
i) Proportion
ii) using std. deviation.

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Farm size in Acres</th>
<th>No. of farms</th>
<th>( \sigma_i )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0 - 40</td>
<td>394</td>
<td>8.3</td>
</tr>
<tr>
<td>2</td>
<td>41 - 80</td>
<td>461</td>
<td>13.3</td>
</tr>
<tr>
<td>3</td>
<td>81 - 120</td>
<td>391</td>
<td>15.1</td>
</tr>
<tr>
<td>4</td>
<td>121 - 160</td>
<td>334</td>
<td>19.8</td>
</tr>
<tr>
<td>5</td>
<td>161 - 200</td>
<td>169</td>
<td>24.5</td>
</tr>
<tr>
<td>6</td>
<td>201 - 240</td>
<td>113</td>
<td>26.0</td>
</tr>
<tr>
<td>7</td>
<td>More than 240</td>
<td>148</td>
<td>35.2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2010</td>
<td></td>
</tr>
</tbody>
</table>

b) Write short notes on any two of the following:
   i) Judgement Sampling
   ii) Cluster Sampling
   iii) Systematic Sampling
3. The following are the marks obtained in statistics by 20 students in an examination:

<table>
<thead>
<tr>
<th></th>
<th>69</th>
<th>25</th>
<th>65</th>
<th>61</th>
<th>45</th>
<th>41</th>
<th>17</th>
<th>61</th>
<th>77</th>
<th>33</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21</td>
<td>17</td>
<td>73</td>
<td>13</td>
<td>33</td>
<td>77</td>
<td>41</td>
<td>57</td>
<td>13</td>
<td>61</td>
</tr>
</tbody>
</table>

Calculate:

a) Mean, Mode and Median
b) Standard Deviation, Mean Deviation (from Mean)
c) Pearson's co-efficient of skewness and Measure of skewness

4. a) The sales manager of an automobile dealer estimates that 90% of the new cars sold by them have no defects and hence will not be brought back immediately for repairs. He sells cars to an important customer. What is the probability that:
   i) No car will be brought back.
   ii) All cars will be brought back.
   iii) One or more cars will be brought back?

b) An airline company from their previous experience know that approximately 3% of those who reserve plane ticket but fail to arrive at the flight time. As a result, the airline regularly sells 100 tickets for a flight in which there are 98 seats. What is the probability that the airline will oversell a flight? (Given $e^{-3} = 0.04979$)

5. a) A tea company appoints four salesmen, A, B, C and D and observe their sales in three seasons - summer, monsoon and winter. The figures (in lakhs) are given in the following table:

<table>
<thead>
<tr>
<th>Season</th>
<th>Salesmen</th>
<th></th>
<th></th>
<th></th>
<th>Season's Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Summer</td>
<td>26</td>
<td>26</td>
<td>11</td>
<td>25</td>
<td>88</td>
</tr>
<tr>
<td>Monsoon</td>
<td>18</td>
<td>19</td>
<td>21</td>
<td>22</td>
<td>80</td>
</tr>
<tr>
<td>Winter</td>
<td>16</td>
<td>18</td>
<td>19</td>
<td>19</td>
<td>72</td>
</tr>
<tr>
<td>Salesmen's Total</td>
<td>60</td>
<td>63</td>
<td>51</td>
<td>66</td>
<td>240</td>
</tr>
</tbody>
</table>

Test whether the sales varies with (i) Salesmen (ii) Seasons. Given that $F_{0.05}$ for degrees of freedom 3 & 6 is 4.76 and for degrees of freedom 2 & 6 is 5.14
b) Four salesmen were posted in different areas by a Company. The number of units of commodity X sold by them are as under:

<table>
<thead>
<tr>
<th>Salesmen</th>
<th>No. of units of Commodity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>20</td>
</tr>
<tr>
<td>B</td>
<td>25</td>
</tr>
<tr>
<td>C</td>
<td>23</td>
</tr>
<tr>
<td>D</td>
<td>15</td>
</tr>
</tbody>
</table>

Test whether the performance of salesmen varies.
Given that F0.05 = 3.49 for degrees of freedom 3 & 12.

6. a) For a certain commodity, a study was made over a number of years regarding monthly sales and following calculations were made.
Trend: \( y = 25.74 + 0.45t \)
Where: \( y = \) Monthly Sales (million Rs.), and
\( t = \) Time units (one month).

Seasonal Variations:

<table>
<thead>
<tr>
<th>Month</th>
<th>Jan</th>
<th>Feb</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seasonal Index</strong></td>
<td>79</td>
<td>76</td>
<td>95</td>
<td>98</td>
<td>106</td>
<td>97</td>
</tr>
<tr>
<td>Month</td>
<td>July</td>
<td>Aug</td>
<td>Sept</td>
<td>Oct</td>
<td>Nov</td>
<td>Dec</td>
</tr>
<tr>
<td><strong>Seasonal Index</strong></td>
<td>86</td>
<td>89</td>
<td>103</td>
<td>122</td>
<td>113</td>
<td>136</td>
</tr>
</tbody>
</table>

Estimate monthly sales for the year 2005, monthwise.
Use multiplicative model.

b) In connection with time series data, explain clearly what is meant by the term, Secular Trend? Describe in short, different methods of determining the trend.

7. An Insurance company wishes to study the possible correlation between the heights and weights of a segment of their insured population. The observation on a random sample of 19 cases is given below:

<table>
<thead>
<tr>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>167</td>
<td>63</td>
</tr>
<tr>
<td>152</td>
<td>55</td>
</tr>
<tr>
<td>165</td>
<td>61</td>
</tr>
<tr>
<td>158</td>
<td>60</td>
</tr>
<tr>
<td>153</td>
<td>56</td>
</tr>
<tr>
<td>168</td>
<td>61</td>
</tr>
<tr>
<td>162</td>
<td>60</td>
</tr>
<tr>
<td>153</td>
<td>55</td>
</tr>
<tr>
<td>172</td>
<td>60</td>
</tr>
<tr>
<td>170</td>
<td>56</td>
</tr>
<tr>
<td>158</td>
<td>61</td>
</tr>
<tr>
<td>169</td>
<td>61</td>
</tr>
<tr>
<td>170</td>
<td>56</td>
</tr>
<tr>
<td>154</td>
<td>55</td>
</tr>
<tr>
<td>167</td>
<td>60</td>
</tr>
<tr>
<td>171</td>
<td>66</td>
</tr>
<tr>
<td>172</td>
<td>72</td>
</tr>
<tr>
<td>152</td>
<td>56</td>
</tr>
</tbody>
</table>
Mean value of height: 162 cms
Mean value of weight: 61 kgs.

a) Find 'r' the correlation co-efficient between heights and weights. 10
b) Find 95% confidence limits for \( \rho \) (rho), the population correlation co-efficient. 8
c) Comment on the reliability of your estimate. 2

An extract from the table containing transformation from 'r' to 'z', where:

\[
Z = \frac{1}{2} \log_e \left( \frac{1+r}{1-r} \right)
\]

is given below:

<table>
<thead>
<tr>
<th>r</th>
<th>0.7148</th>
<th>0.8825</th>
<th>0.9542</th>
</tr>
</thead>
<tbody>
<tr>
<td>z</td>
<td>0.897</td>
<td>1.387</td>
<td>1.877</td>
</tr>
</tbody>
</table>

8. a) Construct chain index numbers for the years 1998-99 to 2001-2002 12
from the following data:

<table>
<thead>
<tr>
<th>Year</th>
<th>Index Numbers of Wholesale Prices (1981-82=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comodities</td>
</tr>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>1998-1999</td>
<td>163.6</td>
</tr>
<tr>
<td>1999-2000</td>
<td>184.9</td>
</tr>
<tr>
<td>2000-2001</td>
<td>218.4</td>
</tr>
<tr>
<td>2001-2002</td>
<td>234.6</td>
</tr>
</tbody>
</table>

b) What do you understand by the term 'Time Reversal Test' for an Index Number? Explain by giving example of any one formula in Index Number theory. 8
<table>
<thead>
<tr>
<th>X</th>
<th>Area</th>
<th>X</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>0.0199</td>
<td>1.1</td>
<td>0.3643</td>
</tr>
<tr>
<td>0.10</td>
<td>0.0398</td>
<td>1.2</td>
<td>0.3849</td>
</tr>
<tr>
<td>0.20</td>
<td>0.0793</td>
<td>1.3</td>
<td>0.4032</td>
</tr>
<tr>
<td>0.30</td>
<td>0.1179</td>
<td>1.4</td>
<td>0.4192</td>
</tr>
<tr>
<td>0.40</td>
<td>0.1554</td>
<td>1.5</td>
<td>0.4332</td>
</tr>
<tr>
<td>0.50</td>
<td>0.1915</td>
<td>1.6</td>
<td>0.4452</td>
</tr>
<tr>
<td>0.60</td>
<td>0.2257</td>
<td>1.65</td>
<td>0.4500</td>
</tr>
<tr>
<td>0.70</td>
<td>0.2580</td>
<td>1.7</td>
<td>0.4554</td>
</tr>
<tr>
<td>0.80</td>
<td>0.2881</td>
<td>1.8</td>
<td>0.4641</td>
</tr>
<tr>
<td>0.90</td>
<td>0.3159</td>
<td>1.9</td>
<td>0.4713</td>
</tr>
<tr>
<td>1.00</td>
<td>0.3413</td>
<td>2.0</td>
<td>0.4772</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.58</td>
<td>0.4951</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.0</td>
<td>0.4987</td>
</tr>
</tbody>
</table>
FELLOWSHIP EXAMINATION
GROUP INSURANCE & RETIREMENT BENEFIT SCHEMES

Time: 3 Hours

[Total Marks: 100]

Answer any FIVE questions only.
All questions carry 20 marks each.

1. Write short notes on:
   a) Group insurance Scheme in lieu of employee deposit linked insurance scheme.
   b) Defined Contribution Scheme.
   c) Costing of Past Service Pensions
   d) Annual Premium Costing

   Marks
   5 each

2. a) The Trust Deed and Rules of a superannuation fund should contain certain important provisions so that the fund will qualify for approval under the Income-Tax Act, 1961 and Income-Tax Rules, 1962. Enumerate these important provisions.
   b) Briefly discuss the reasonableness of these provisions.

   Marks
   14
   6

3. a) Briefly trace the origin of retirement benefits in our country, and discuss the three main factors, namely social, economic and legislative, which contributed to the development of the present set of death-cum-retirement benefits to the organized section of the working class population.
   b) The absence of a comprehensive social security scheme and the problems faced after retirement on account of the spiralling inflation have evidently brought to the surface the shortcomings of the existing patterns of service benefits. Critically examine their drawbacks and inadequacies and suggest specific ways and means of reorganizing the benefits, keeping in view the likely opposition from interested quarters.

   Marks
   10 each

4. a) Discuss the relative merits and demerits of:
    i) a gratuity scheme administered by a life office and
    ii) a privately (Trustee) administered gratuity scheme. What considerations would influence you in advising an employer as to which type of scheme i) or ii) to adopt for his employees?
b) A Student says: “In respect of a Life Office’s portfolio of gratuity schemes where benefits are funded, not under pure endowment plan but under cash accumulation plan, the fund balances at the year end are taken as valuation liabilities and not as accounting liabilities. As the cash accumulation plan is akin to a Bank account, the fund balances should be taken as accounting liabilities, leading to more effective control of funds.” Comment.

5. What are the conditions to be fulfilled by an establishment for obtaining exemption from the provisions of the Employees Provident Funds and Miscellaneous Provisions Act, 1952?

6. Critically examine the problems and the possible solutions in connection with group insurance schemes pertaining to:
   a) Disparate Groups
   b) Voluntary groups.
   c) Very large groups.

7. Samarth Steel Co. Ltd. is a joint stock company in private sector employing about 600 employees. The company has an approved superannuation fund for providing pension benefits to its employees. The fund which was set up 15 years ago is managed by the trustees and is to the tune of Rs. 26 crores as at 31-3-2008. The fund also includes equitable interest brought in by 22 employees by way of transfer. The fund provides for pension on retirement at 1/60th of final salary for each year of service. Employees contribute at 5% of salary every month. The balance of the cost to scheme the benefits based on actuarial valuation is met by the company as yearly contribution.
   Consequent upon a court order, the company is to wind up its business with effect from 01.01.2009 for which legal formalities are being initiated. As a sequel to this, the Trustee have made an application to the commissioner of Income-Tax (C.I.T) for winding up of the Trust Fund in terms of Rule 93 of the Income Tax Rules, 1962:
   a) Enumerate the important conditions the C.I.T. would stipulate in connection with the winding up of the Trust Fund.
   b) State the steps, the trustee would be required to follow, leading to the ultimate winding up.
8. State the Income Tax position from the point of view of both an employee and employer (wherever applicable) in regards to the following, indicating the relevant sections of the Income Tax Act, 1961:

a) Commuted Value payable under Group Superannuation Scheme at the time of Retirement.

b) Employer's contribution towards fifth yearly instalment of single premium towards past service Gratuity Liability.

c) Death benefit received under GSLI Scheme consisting of risk cover sum assured and savings portion with accumulated interest.

d) Annual Contribution made by an employee and employer under a contributory Group Superannuation Scheme.

---- END ----
FELLOWSHIP EXAMINATION
REINSURANCE

Time: 3 Hours] [Total Marks : 100

Answer any FIVE questions only.
All questions carry 20 marks each.

1. Reinsurance is a contract of indemnity because it protects the insurer from a diminution of his property caused by insurance policy obligations. Elaborate this statement and analyze factors which influence the results of reinsurance.  

2. a) What are the methods of placing a reinsurance program?  
   b) What is the role of an intermediary in the placement of a reinsurance program?  
   c) What are the advantages of placement with Professional Reinsurers directly?  

3. Write notes on any five:  
   a) PML  
   b) Stop Loss  
   c) Line  
   d) Cut-Through Clause  
   e) Cash Loss Register  
   f) Life Reassurance  
   g) Surplus and Quota Share Treaty.  

4. What are the different methods of Non-Proportional reinsurance and their uses?  

5. How do we determine the optimum retention schedule for property Insurance?  

6. a) What is credit rating?  
   b) What are the key areas that a Credit Rating agency will look into while rating a Company?  
   c) What are the limitations in credit ratings?
7. Prepare a profit commission statement for the period 01.04.2007 to 31.03.2008 and calculate profit commission payable thereof on 3 years average basis on following results:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium</td>
<td>Rs. 90,00,000</td>
</tr>
<tr>
<td>Portfolio Entry:</td>
<td></td>
</tr>
<tr>
<td>Premium</td>
<td>Rs. 30,00,000</td>
</tr>
<tr>
<td>Loss</td>
<td>Rs. 10,00,000</td>
</tr>
<tr>
<td>Portfolio withdrawal:</td>
<td></td>
</tr>
<tr>
<td>Premium</td>
<td>Rs. 31,50,000</td>
</tr>
<tr>
<td>Loss</td>
<td>Rs. 9,00,000</td>
</tr>
<tr>
<td>Commission</td>
<td>40%</td>
</tr>
<tr>
<td>Claims Paid</td>
<td>Rs. 25,00,000</td>
</tr>
<tr>
<td>Taxes &amp; Charges</td>
<td>Rs. 20,000</td>
</tr>
<tr>
<td>Management Expense</td>
<td>3%</td>
</tr>
<tr>
<td>Profit Commission</td>
<td>20%</td>
</tr>
<tr>
<td>Profit for 2006-07</td>
<td>Rs. 12,00,000</td>
</tr>
<tr>
<td>Loss for 2005-06</td>
<td>Rs. 1,30,000</td>
</tr>
</tbody>
</table>

8. Why do we consider that processing information is the basis for Reinsurance decisions?

------ END ------
1. Give an outline of various methods available to an organization for risk financing.  

2. What are the features involved in risk management for corporates?  

3. How and why probability concepts are used in risk management?  

4. What is Safety Audit and what are the stages in it?  

5. "Risk Transfer can take two forms:-
   - Transfer of the activity that creates the risk, and
   - Transfer of the financial losses through hold harmless and indemnity clauses"
   a) Give examples of the two methods
   b) Examine the cost implications of the methods.  

6. Elaborate the risk reduction measures.  

7. Write short notes:
   a) Review of risk management process
   b) Organization Charts.
   c) Mutual Aid Schemes.
   d) Written corporate risk management policy.  

8. a) How does Risk Management help in achievement of corporate objectives?  
   b) What are the steps in setting up a Captive Insurance Company?  

----- END -----
FELLOWSHIP EXAMINATION

LAW AND ECONOMICS OF INSURANCE

Time: 3 Hours] [Total Marks: 100

Attempt at least 2 questions each from Section 'A' and Section 'B'.

Total Questions to be attempted are 5 only.

All questions carry 20 marks each.

Section- 'A'

1. a) Mention the contents of Sec. 64 VB of Insurance Act on “Advance payment of premium”.
   b) What are the relaxations available under the Act?

2. “Arbitration may also be with intervention of the Court.” Explain.
   Marks: 20

3. Write short notes on the following:
   a) Coercion
   b) Modes of discharge of contracts.
   c) Consideration for Insurance Contract.
   d) Termination of Agency
   Marks: 5 each

4. a) Critically discuss the statement: “All contracts are Agreements but all agreements are not contracts.”
   b) Discuss the circumstances under which a Surety is not discharged of his liability.
   Marks: 10 each

Section- 'B'

5. “It is worth while to analyse the market structures that affect the equilibrium of the firm.” Explain the statement with reference to different types of market structures.
   Marks: 20

6. What are costs of Production? Explain in detail the various types of costs of production.
   Marks: 20
7.  a) "The unfair practices in respect of competition, prices capital flow, use of technology etc. are termed as monopolistic and restrictive trade practices." - Explain.

   b) Briefly explain the market demand for insurance.

8. Write short notes on the following:
   a) Oligopoly
   b) Combination of risks
   c) Perfect competition
   d) "Insurance has to be sold rather than bought."

       END
FELLOWSHIP EXAMINATION
MARKETING AND PUBLIC RELATIONS

Time: 3 Hours

Answer any FIVE questions only.
All questions carry 20 marks each.

(Note: Answer to questions pertaining to the Insurance Industry may be given with reference to either Life or General Insurance Industry)

<table>
<thead>
<tr>
<th>Question</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In many cities, bus transport is run by the State or the Municipality, as a monopoly. To what extent can these organisations use marketing concept? The answer should keep in mind the statement in the text that ‘In a situation where either the producer or the customer has no choice, there is hardly any scope for marketing’.</td>
<td>20</td>
</tr>
<tr>
<td>2. a) What are objectives? b) Why are objectives important? c) What are the essential characteristics of an objective. d) State at least six objectives that a Branch Manager of an insurer, life or general, can set for the next six months.</td>
<td>2 3 3 12</td>
</tr>
<tr>
<td>3. Write short notes on :- a) Positioning b) Ease of Access c) Customer Satisfaction Index d) Right First Time</td>
<td>5 each</td>
</tr>
<tr>
<td>4. a) It is said “What one sees as ‘facts’ may be seen by others as either ‘conjecture’ or ‘figment of a fertile imagination’. Why does this happen? b) Discuss the extent to which ‘Barriers to Entry’ exist in the insurance industry.</td>
<td>10 10</td>
</tr>
</tbody>
</table>
5. Differentiate between:
   a) Recognition and Responsiveness
   b) Star and Cash Cow
   c) Grievance and Complaint
   d) Key and Non-key activities

6. a) How can the following persons in an insurance office contribute to quality of service?
    i) HRD manager in a Head Office.
    ii) Data Processing Officer in a Branch office.
    iii) Claims Officer in a Branch office.

   b) Among these three persons, whose contribution would you consider to be the most important and why?

7. a) Why is it suggested that it is advisable to 'keep customers out of the process of making the product'?
   b) How far is it practicable to do so in the insurance business?
   c) How can the concept of 'Moments of Truth' be used to improve quality?

8. Out of the 7 Ps (Product, Price, Promotion, Place, People, Process and Physical factors), state which one (choose only one P) is relevant for the following. Give reasons to justify the answer:
   a) Insurance company sponsoring a theatre group.
   b) Running a competition for salesmen.
   c) Telephone company setting up help-lines that work 24 hours.
   d) Passport authorities authorising several agencies to collect applications.
   e) Conferences announcing lower fees for delegates registering early.
   f) Universities allowing on-line registration and issue of hall tickets for examinations.
   g) Guests in a hotel being asked to nominate for best employee awards
   h) Hotel offering free transport to and from airport.
   i) Store decorating its display window for Christmas with Santa Claus.
   j) Police deploying additional forces for New Year's Eve.

------ END ------
From the following Trial Balance as on 31.03.2007 of Navajeevan Life Insurance Co. Ltd, prepare the Revenue Account for the year and Balance Sheet as on that date.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Debit Rs.</th>
<th>Credit Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims Paid:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Death</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>By Maturity</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Annuities</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Cash at Bank</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Cash on Hand</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Agents Balances</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Loans on Policies</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Investment (at cost)</td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>Buildings (at cost)</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>Income Tax</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Share Capital</td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>Life insurance Fund (01.04.2006)</td>
<td></td>
<td>2500</td>
</tr>
<tr>
<td>Net Premium</td>
<td></td>
<td>1800</td>
</tr>
<tr>
<td>Claims Outstanding: (01.04.2006)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By death</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>By Maturity</td>
<td></td>
<td>125</td>
</tr>
<tr>
<td>Premium Deposits</td>
<td></td>
<td>300</td>
</tr>
<tr>
<td>Consideration for Annuities</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Management Expenses</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>Interest Rates and Dividends</td>
<td></td>
<td>1200</td>
</tr>
</tbody>
</table>
FC-89

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Debit Rs.</th>
<th>Credit Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commission</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Registration and other fees</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>Sundry Creditors</td>
<td></td>
<td>275</td>
</tr>
<tr>
<td>Furniture</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Advance Payment of Income Tax</td>
<td></td>
<td>75</td>
</tr>
<tr>
<td>Mortgage Loan</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td></td>
<td><strong>8500</strong></td>
<td><strong>8500</strong></td>
</tr>
</tbody>
</table>

Other adjustments to be made are:

- All figures are Rs. in Lakhs.

a) Claims outstanding as at 31.03.2007:
   i) By Death 70
   ii) By Maturity 100

b) Depreciation to be provided:
   on furniture @10%
   on buildings @5%

c) Market Value of investments  Rs. 7500/-
d) Outstanding expenses  Rs. 70/-
e) Commission prepaid  Rs. 25/-

OR

The following is the Trial Balance of Premier General Insurance Company Ltd. as on 31.03.2007. You are required to prepare the related Revenue Accounts, Profit & Loss account and Profit and Loss Appropriation account for the year ending 31.03.2007 and the Balance Sheet as on that date.

(Rs. In Lakhs)

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share Capital</td>
<td>12,000</td>
<td></td>
</tr>
<tr>
<td>Balance of funds (01.04.2006):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Insurance</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Marine Insurance</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Insurance</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>General Reserve</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>Claims Paid:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Insurance</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Marine Insurance</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Insurance</td>
<td>1325</td>
<td></td>
</tr>
</tbody>
</table>

22
<table>
<thead>
<tr>
<th>Particulars</th>
<th>Debit Rs.</th>
<th>Credit Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium Less insurance Ceded:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>3100</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Commission Paid:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Expenses of Management:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>225</td>
<td></td>
</tr>
<tr>
<td>Claim Outstanding (01.04.2006):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>680</td>
<td></td>
</tr>
<tr>
<td>Audit Fees</td>
<td>5</td>
<td>150</td>
</tr>
<tr>
<td>Interest, Rent and Dividends</td>
<td>8000</td>
<td>150</td>
</tr>
<tr>
<td>Investments</td>
<td>2200</td>
<td>635</td>
</tr>
<tr>
<td>Amount due from insurers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount due to insurers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outstanding Premium</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Agents balances</td>
<td>225</td>
<td></td>
</tr>
<tr>
<td>Furniture &amp; fixtures</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Buildings</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>Interest outstanding</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Sundry Debtors</td>
<td>1400</td>
<td></td>
</tr>
<tr>
<td>Cash in hand</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>Cash at bank</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19,685</strong></td>
<td><strong>19,685</strong></td>
</tr>
</tbody>
</table>

**Other information:**

1. Claims outstanding (31.03.2007):
   a) Fire 1200
   b) Marine 125
   c) Miscellaneous 1000
2. Accrued interest Rs.150
3. Provide for unexpired risk reserve at 50% for fire and miscellaneous insurance and at 100% in Marine Insurance.
4. Provide 5% depreciation on building and 20% on furniture and fixtures.
5. Market Value of investments Rs. 10,000/-
2. From the following ratios of United chemical Industries Limited, you are required to find out:
   a) Sales
   b) Sundry Debtors
   c) Sundry Creditors and
   d) Closing Stock
      i) Debtors Velocity = 3 months
      ii) Stock Velocity = 8 months
      iii) Creditors Velocity = 2 months
      iv) Gross Profit ratio = 20%
      v) Gross profit for the year = 6,00,000/-
      vi) Closing Stock = Opening stock + Rs. 1,00,000/-
      vii) Bills Receivable = Rs. 25,000/-
      viii) Bills Payable = Rs. 20,000/-

3. a) List out the circumstances under which a firm may be forced to fix the price below total cost.
   b) Two business A Ltd and B Ltd sell the same type of product in a market. Their budget for the year 2001 are as follows:

   A Ltd. | B Ltd.
   -------|--------
   Rs.     | Rs.
   Sales   | 2,00,000 | 2,00,000
   Less : Variable Cost | 1,50,000 | 1,20,000
   Fixed Cost   | 15,000   | 165,000
   Net Budgeted Profit | 35,000   | 35,000

   You are required to:
   i) Calculate the breakeven point of each business and
   ii) State which business is likely to earn greater profits in conditions of heavy demand of the product and in condition of low demand.

4. a) Explain the importance of inventory management and the tools used in such management.
   b) Royal Industries Ltd. uses about 75,000 valves per year and the usage is fairly constant at 6250 per month. The valve cost is Rs. 3/- per unit while the carrying cost is estimated to be 20% of average inventory investment on an annual basis. The cost of placing the order is Rs. 18/-. Safety stock is 3250 valves and the delivery will take 45 days.
You are required to calculate:

i) The most economical order quantity and frequency of orders

ii) The order point

iii) The most economical order quantity if the valves cost Rs. 6/- each instead of Rs. 3/-

5. a) What is variance analysis? Explain the various types of variances.

b) The standard labour complement and the actual labour complement engaged in a week for a particular job are as follows:

<table>
<thead>
<tr>
<th>Workers</th>
<th>Skilled</th>
<th>Semi Skilled</th>
<th>Unskilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>32</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>ii)</td>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>iii)</td>
<td>28</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>iv)</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

During the 40 hour working week, the group produced 1800 standard hours of work.

Calculate:

1) Labour efficiency variance
2) Rate of wages variance.
3) Labour mix variance and
4) Total labour cost variance

6. Nutan enterprises Ltd. is considering the purchase of a new computer system costing Rs. 35 lakh. The operation and maintenance costs (Excluding depreciation) are expected to be Rs. 7 lakhs per annum. The useful life of the system is 6 years and expected to get a scrap value of Rs. 1 lakh.

The system will reduce the design and draftsmanship costs by Rs. 12 lakhs per annum. The disposal of the used furniture and other equipments, in the beginning is expected to bring in a cash flow of Rs. 9 lakhs. The cost of capital for the Co. is 12% and ignore depreciation and income tax.

As financial consultant to the company, you are requested to examine the proposal and give your recommendation.

Note: PV factor of annuity for 6 years @ 0.12 = 4.111
PV factor for 1 year 0.50%
7. Write short notes:
   a) Accounting concepts.
   b) Types of Budgets
   c) Costing System
   d) Need for cash flow statements.

8. Enumerate the various disclosures required to be made along with the financial statements under the IRDA Regulations.

-----The END-----
FELLOWSHIP EXAMINATION
HUMAN RESOURCES MANAGEMENT

Time: 3 Hours

Answer any FIVE questions only.
All questions carry 20 marks each.

1. State, giving reasons, whether the following statements are correct:
   a) Filtering and Perceptions are interrelated.
   b) The two-factor theory was proposed by McClelland.
   c) Coding is done in order to maintain secrecy.
   d) Social audit is done by Chartered Accountants.

2. a) It is said that decisions are differentiated as programmed decisions and non-programmed decisions. Explain the difference between the two. Is there any difference in the (i) extent of use of discretion and (ii) the level of managers (front line, middle and top) at which such decisions may be taken?
   b) State whether the following decisions are programmed or non-programmed. Give reasons for your answer.
      i) purchasing new computers to be used by branch offices.
      ii) planning the renovation of the office premises.
      iii) opening of a branch office in a new city.
      iv) taking disciplinary action against an erring employee.
      v) working out a plan for intensive development of a district.

3. a) State the different methods adopted to determine salary levels.
   b) Is it correct to say that, in our country, the differentials in remunerations between executives and other employees is not very large. Give reasons.
   c) One company says that training employees is a waste of time and money as, after acquiring skills, they will leave the jobs and go elsewhere. Do you agree with this stand? Can anything be done to prevent employees leaving?
4. a) What are the different types of standards used for control?  
   b) With reference to the work in your department, explain the type of standard used for control and the way the performance is measured.

   b) Write short notes on any two of these areas of HRD.

6. a) When and Why did managements start paying attention to working conditions like ventilation, lighting and temperature?  
   b) Does the same emphasis on working conditions continue even now? If there is any change, what is it?

7. Distinguish between:-  
   a) The Authority Pyramid and the Inverted Pyramid.  
   b) Training and Development.  
   c) Eu-stress and Distress.  
   d) Selection Interview and Post Appraisal Interview.

8. a) What kind of information can be found from (i) Group Dynamics Exercise and (ii) interview during selections?  
   b) How does it help an employee if he is assigned to work in Committees?

----- END -----
NOVEMBER, 2008

FELLOWSHIP EXAMINATION

LEGAL ASPECTS OF INDUSTRIAL RELATIONS

Time: 3 Hours] [Total Marks : 100

Answer any FIVE questions only.
All questions carry 20 marks each.

1. “For the purpose of industrial adjudication, it may be stated that generally the aim is to create equitable, social and economic conditions for the employers/employees so that industrial peace and progress of the nation are achieved.” Write a critical note on social justice. Marks 20

2. a) Define ‘Workman’ as provided under Industrial Dispute Act, 1947. Can there be an industrial dispute after the industry has been closed down? Marks 12
   b) Do University and Hospital fall under the definition of ‘Industry’? Justify your answer with reasons. Marks 8

3. Explain the various authorities provided in the Industrial Dispute Act, 1947 for Prevention and settlement of industrial disputes with particular reference to the role of Labour Courts. Marks 20

4. What are ‘Unfair Labour Practices’? Discuss the provisions made in the Industrial Disputes Act, 1947 to prevent such practices. Marks 20

5. Write short notes on any four: Marks 5 each
   a) The case of Cricket Club of India V/s its Workmen.
   b) Quo Warranto
   c) Constitution of works committee.
   d) Public utility service.
   e) Industrial adjudication and collateral issues.

6. a) Explain briefly the liability of an Employer for compensation under Workman’s Compensation Act, 1923. Marks 12
   b) What is the ‘National Extension Theory’? Marks 8
7. Discuss the following provisions under the Payment of Gratuity Act, 1972.
   i) Amount of Gratuity.
   ii) Better Terms of Gratuity.
   iii) Protection of Gratuity.
   iv) Recovery of Gratuity.

8. a) What are the scope and objects of the Trade Unions Act, 1926?
    b) Explain the following terms under the Payment of Wages Act, 1936.
       i) Wage Period.
       ii) Time of Payment of wages.
       iii) Maximum permissible Deductions

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FELLOWSHIP EXAMINATION
ADVANCED INFORMATION TECHNOLOGY

Time: 3 Hours] [Total Marks: 100

Answer any FIVE questions only.
All questions carry 20 marks each.
(Template is not required for drawing flow charts.)

1. E-insurance will change the traditional method of transacting insurance business. Discuss this with reference to the capabilities and challenges that e-insurance offers. [20 marks]

2. a) The Relational Approach in Database Management system is the most popular one. Illustrate this model using an example. [12 marks]
b) Write a note on the structured query language. [8 marks]

3. a) Briefly cover different models of Network Topologies. [10 marks]
b) What is Expert system? [5 marks]
c) Explain 'BIOS' [5 marks]

4. a) Narrate the security features of Windows XP operating system. [12 marks]
b) What are the different ways in which internet connections can be made possible? [8 marks]

5. Write short notes on:
   a) Features of Microsoft Excel. [5 each]
   b) vi editor in UNIX
   c) Laser Printers.
   d) Meta data

6. Explain the following:
   a) Modularization (in structured programming) [10 each]
   b) Visual display unit. (Monitors)
7. How Computer systems are affected by viruses and worms and hacked by intruders; briefly write what preventive steps can be taken to protect the systems?

8. Elaborate about the evolution of Languages.

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NOVEMBER, 2008

FELLOWSHIP EXAMINATION
ASSET MANAGEMENT

Time: 3 Hours] [Total Marks: 100

Answer any FIVE questions only.
All questions carry 20 marks each.

1. a) What is the relationship between interest rates and bond prices?
   b) What are the interest rates relevant to the analysis of derivatives.

2. What are the advantages of investing through a Mutual Fund? Describe the various types of mutual Funds.

3. Define the following:
   a) Hard Currency.
   b) Overseas Corporate Bodies.
   c) Rupee Trade.
   d) Repatriation outside India.
   e) Euro

4. Government securities are an important instrument in the financial markets of any country. Discuss with reference to the Indian economy.

5. “A portfolio of investments offers more safety than a single investment.” Discuss the concept of a portfolio highlighting the underlying assumptions.

6. RBI is sole guardian and only custodian of foreign exchange in India. Do you agree and what role RBI plays under FEMA?

7. Describe the basic concepts underlying the analysis of charting techniques.

8. Exports play a very crucial role in a developing economy. Discuss and how it is financed and governed in India?

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