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. i) Find the time in days for Rs. 5,000 to accumulate to Rs. 6,000 at
   a) a simple rate of interest of 8% per annum.
   b) a compound rate of interest of 8% per annum convertible quarterly.
   c) a compound rate of interest of 8% per annum convertible monthly.

ii) a) Explain the relationship \( d = i v \) by general reasoning where 'd' is
    the effective annual rate of discount and 'i' is the effective annual
    rate of interest.

   b) Consider two investments given below:
      i) A 3 month deposit paying 7% per annum convertible half
         yearly.
      ii) A 3 month deposit offering d% per annum simple rate of
          discount.

      If both investments provide the same effective rate of return find the
      value of 'd'. You may assume that both deposits provide Rs. 100 at
      the end of 3 months.

      Given :- \( V^{1/2} \) @ 3.5% = 0.9829

iii) An investor 'A' invests Rs. 50,000 for 8 years at a simple rate of 6% per
      annum. He immediately sells this investment to 'B' for the present value
      of the maturity amount calculated at a nominal rate of 8% p.a. convertible
      half yearly for first four years and 8% per annum effective for next four
      years. The amount thus received was invested by 'A' in a 8 year deposit
      account at a nominal rate of interest at 8% per annum convertible quarterly.

      Compared with the return on the original investment, calculate the gain or
      loss to A by selling and reinvesting.

      Given :- \( V^8 @ 4\% = 0.7307; \quad V^4 @ 8\% = 0.7350; \quad 1.02^{32} = 1.8845 \)
2. a) In a stationary community of 5,70,000, the number of deaths is 12000 annually. The complete expectation of life on attaining majority at age 18 is 47.50. If $\frac{1}{3}$ of the population is under age 18, how many individuals attain majority in the course of a year and what is the average age at death of children under 18?

b) A person aged 24 first entering service wishes to purchase a deferred annuity of Rs. 2,400 p.a. payable from age 60 onwards so long as he may be alive.

i) Calculate the net annual premium during the deferment period.

ii) In the above premium is altered if the deferred annuity after attaining age '60' is to be an annuity certain for 10 years and to continue thereafter for the rest of the life time. Calculate the altered premium.

Given that:

$$\begin{align*}
D_{24} &= 244104 \\
N_{24} &= 3935573 \\
D_{60} &= 24604 \\
N_{60} &= 249057 \\
N_{70} &= 75664 \\
\overline{a}_{10} &= 7.3607
\end{align*}$$

3. i) In a Special mortality table with a select period of one year the following relationship holds for all ages:

$$\begin{align*}
0.5 \overline{q}_x &= (0.26) \times q_x \\
0.5 \overline{q}_x + 0.5 &= (0.40) \times q_x
\end{align*}$$

Express $\overline{p}_x$ in terms of $p_x$.

ii) In a special mortality table with a select period of 3 years,

Given that:

$$\begin{align*}
\overline{q}_{35} &= 0.012 \\
2 \overline{q}_{35} &= 0.022 \\
2 \overline{q}_{35} &= 0.85 \\
2 \overline{q}_{35} + 1 &= 0.079
\end{align*}$$

Find the value of $3 \overline{p}_{38}$.

iii) Under the assumption that the deaths are uniformly distributed over each year of age, it is given that:

$$t \overline{q}_x = t \times q_x$$

Show that:

a) $l_x + t = l_x - t \times d_x$ 

b) $l_x + t = (1 - t) \times l_{x+t} + t \times l_{x+1}$

For $0 \leq t < 1$ and age $x = 0, 1, 2 \ldots$
iv) Given that: \( e_{50} = 8.322 \quad e_{51} = 8.134 \quad l_{51} = 56385 \)

Calculate: \( l_{50} \)

4. a) Ajay has invested some money and will receive returns of Rs. 200 for 4 years on the same. First payment will be payable after one year from now. For next 5 years he is entitled to Rs. 150 p.a. Find the present value of these payments at 7% p.a. Also find the accumulated value of the annuity at the end of 9 years.

\[
(l + i)^4 = 1.31080 \quad (l + i)^5 = 1.40255 \quad (l + i)^9 = 1.8346
\]

\[
a_{\overline{4}|} = 3.3872 \quad a_{\overline{5}|} = 4.1002 \quad a_{\overline{9}|} = 6.5152 \quad @7\%
\]

b) Provident fund deductions are made monthly at a rate of Rs. 200 per month and credited to P.F. account.

i) Find the accumulated value at the end of 10 years, at a rate of interest of 10% p.a.

ii) What will be the accumulated value if the rate of interest is 10% p.a. convertible half-yearly.

\[
\text{@ 10\%} \quad s_{\overline{10}|} = 15.9374 \quad i^{(12)} = .095690
\]

\[
\text{@ 5\%} \quad s_{\overline{20}|} = 33.0660 \quad i^{(6)} = .048989
\]

c) A loan of Rs. 75,000 is to be repaid with interest at 8% p.a. by means of 20 level annual payments, the first one being made at the end of first year. Find the principal repayment contained in 10th payment. Immediately after the 10th payment is made, the lender desires to have the balance repaid in 3 level annual payments including principal and interest, to which the borrower agreed provided a rate of 7% p.a. is used for this arrangement. Find the revised level repayment.

At the rate of 8\%: \( a_{\overline{20}|} = 9.8181 \quad v^{11} = 0.4288 \quad a_{10|} = 6.7101 \)

At the rate of 7\%: \( a_{\overline{7}|} = 2.6243 \)

5. i) Given that: \( l_{35} = 100000 \quad a_{10|} @6\% = 7.3601 \quad v^{10}_{@6\%} = 0.55839 \)

and \( l_{35} + t = l_{35} - 100 \) where \( t = 1, 2, \ldots, 10 \)

Find the value of \( A_{35: \overline{10}|} \) at 6% p.a. rate of interest.
ii) The premium equation for endowment assurance policy is given as:

\[ P \ddot{a}_x \equiv n = S A_x \equiv n \] where \( P = \) annual premium \( S = \) sum assured

For each of the additional information below, modify and rewrite the premium equation.

a) Initial expenses of 5\% of sum assured
b) Initial expenses of 5\% of sum assured and renewal expenses of 3\% of each premium including the first premium.
c) Initial expenses of 30\% of first premium plus renewal expenses of 2\% of each premium excluding the first premium plus claim expenses of 3\% of sum assured.

iii) A life insurance company issues 25 year endowment assurance policies to individuals aged 35 years. The sum assured payable at the end of year of death is Rs. 1,00,000 and Rs. 5,00,000 on survival. Calculate the annual premium payable in advance for 20 years or till earlier death.


\[
\begin{align*}
N_{35} &= 1906522.39 \\
M_{35} &= 18747.99 \\
D_{35} &= 126664.23 \\
N_{55} &= 403807.17 \\
M_{60} &= 10506.87 \\
D_{60} &= 24604.43
\end{align*}
\]

6. i) State the conditions necessary for gross premium prospective policy values and retrospective policy values to be equal.

ii) Demonstrate the equality of prospective and retrospective gross premium policy values for a single premium, unit sum assured whole life policy. Ignore expenses.

iii) Explain by general reasoning the relationship:

\[ (\ddot{V}_x + P_x) (1+i) = q \ddot{V}_x + p \ddot{V}_x (1+i) \]

iv) Calculate \( \ddot{V}_x \), given the following:

\[
\begin{align*}
P_x &= 0.032 \\
\ddot{V}_x &= 0.592 \\
i &= 0.06 \\
q \ddot{V}_x &= 0.032
\end{align*}
\]
7. a) What is the benefit that is represented by \( a_{x:n} - a_{x:n-1} \)?

b) Calculate the net annual premium and the office annual premium for a 30 year non-profit endowment assurance for Rs. 1000 on a life aged 30 allowing for the following expenses.
   i) Initial expenses of Rs. 30 per 1000 sum assured.
   ii) General expenses of 7.5% of each premium.
   iii) Constant loading of Rs. 2 per year per Rs. 1000 sum assured including the first.

\[
\begin{align*}
D_{30} &= 170763  \\
N_{30} &= 2666995  \\
M_{30} &= 19802
\end{align*}
\]
\[
\begin{align*}
D_{60} &= 24604  \\
N_{60} &= 249057  \\
M_{60} &= 10507
\end{align*}
\]

c) Give that \( A_x = 0.2790 \) and \( P_x = 0.0167 \). Find \( a_x \) and \( r \) rate of interest.

8. a) Prove that:

i) \[
\frac{a_x \cdot a_{x+1} \cdots a_{x+n}}{\ddot{a}_{x+1} \cdots \ddot{a}_{x+n}} = \frac{n}{a_x}
\]

ii) Establish algebraically the relationship:

\[
\ddot{a}_{x:n} - a_{x:n} = 1 - A_{x:n}
\]

b) Calculate office annual premium limited to 15 years under a With profit Endowment Assurance for Rs. 25,000 for a term of 25 years to a person aged 40.

Provide for the following:
   i) First year expenses at 45% of premium and 8 per thousand sum assured.
   ii) Renewal expenses for the second and subsequent policy years at 7% of premiums and 3 per thousand sum assured during the premium paying term.
   iii) A constant expense of Rs. 2 per thousand sum assured after premium cease and till the expiry of the contract.
   iv) A bonus loading of Rs. 22 per thousand sum assured per year.

Given:

\[
\begin{align*}
R_{40} &= 424773.69  & R_{65} &= 84353.11  & D_{65} &= 16251.89 \\
N_{40} &= 134301.47  & N_{65} &= 143668.44  & M_{65} &= 8119.74 \\
M_{40} &= 17625.63  & N_{55} &= 403807.17  & D_{40} &= 93645.23
\end{align*}
\]
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. Following data gives quality ratings for ten branches of an insurance company by five industry experts. Analyse data and discuss whether there is any significant difference between the branches or between the experts.

<table>
<thead>
<tr>
<th>Branches</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experts</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>99</td>
<td>70</td>
<td>90</td>
<td>99</td>
<td>65</td>
<td>85</td>
<td>75</td>
<td>70</td>
<td>85</td>
<td>92</td>
</tr>
<tr>
<td>B</td>
<td>96</td>
<td>65</td>
<td>80</td>
<td>95</td>
<td>70</td>
<td>88</td>
<td>70</td>
<td>51</td>
<td>84</td>
<td>91</td>
</tr>
<tr>
<td>C</td>
<td>95</td>
<td>60</td>
<td>48</td>
<td>87</td>
<td>48</td>
<td>75</td>
<td>71</td>
<td>93</td>
<td>80</td>
<td>93</td>
</tr>
<tr>
<td>D</td>
<td>98</td>
<td>65</td>
<td>70</td>
<td>95</td>
<td>67</td>
<td>82</td>
<td>73</td>
<td>94</td>
<td>86</td>
<td>80</td>
</tr>
<tr>
<td>E</td>
<td>97</td>
<td>65</td>
<td>62</td>
<td>99</td>
<td>60</td>
<td>80</td>
<td>76</td>
<td>92</td>
<td>90</td>
<td>89</td>
</tr>
</tbody>
</table>

Given:- F:05 for 9 & 36 degrees of freedom = 2.15
F:05 for 4 & 36 degrees of freedom = 2.63

2. a) An unbiased die numbered 1 to 6 is rolled. The three events $E_1, E_2$ and $E_3$ are defined as:
$E_1 =$ appearance of 1, 2 or 3 on upper face,
$E_2 =$ appearance of 2, 3 or 4 on upper face,
$E_3 =$ appearance of 3, 4 or 5 on upper face.
Find $P_r \{E_1 \cup E_2 \cup E_3\}$ using 'the addition law' of probability.

b) In the case of 4 people of different ages (Say A, B, C and D), the probability of living for 10 years are respectively 0.5, 0.4, 0.3 and 0.2. Calculate the probability that, of these 4 people, exactly 2 will live for 10 years.
3. For the data given in the following Table:
   a) Calculate the co-efficient of correlation between $x$ & $y$  
   b) Find the equation of regression line of $y$ on $x$ and estimate the value of $y$ when $x = 3$  
   c) Find the equation of regression line of $x$ on $y$ and estimate the value of $x$ when $y = 5$  

<table>
<thead>
<tr>
<th>Variable $x$ →</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>7</th>
<th>8</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable $y$ →</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

4. a) A firm selected a random sample of 100 items from its production line and obtained following data:

<table>
<thead>
<tr>
<th>Class interval</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>130 - 134</td>
<td>3</td>
</tr>
<tr>
<td>135 - 139</td>
<td>12</td>
</tr>
<tr>
<td>140 - 144</td>
<td>21</td>
</tr>
<tr>
<td>145 - 149</td>
<td>28</td>
</tr>
<tr>
<td>150 - 154</td>
<td>19</td>
</tr>
<tr>
<td>155 - 159</td>
<td>12</td>
</tr>
<tr>
<td>160 - 164</td>
<td>5</td>
</tr>
</tbody>
</table>

Compute the following:

i) Arithmetic mean

ii) Standard deviation

iii) $\alpha_3$ (Measure of skewness)

b) The mean marks obtained by 300 students in an examination are 45. The mean of top 100 students is 70 and the mean of last 100 students is 20. What is the mean of middle 100 students?

5. a) Prices paid and quantities consumed for 3 commodities during two time periods are given in following table:

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Base year 1990</th>
<th>Current year 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Price</td>
<td>Quantity</td>
</tr>
<tr>
<td>A</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>4</td>
</tr>
</tbody>
</table>
i) Using the quantities in base year as weights, what change in prices has occurred between two time periods? (Use Laspeyre's formula)

ii) What is the percentage change in prices if quantities in current year are used as weights?

iii) What is the percentage change in quantities if prices in base year are used as weights?

iv) Calculate value index for above data.

b) Two price index series are given below. Splice them on the base year 2004 = 100. By what percent did the price rise between 2000 & 2005?

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old price Index 1995 = 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>141.5</td>
<td>163.7</td>
<td>158.2</td>
<td>156.8</td>
<td>157.1</td>
<td>-</td>
</tr>
<tr>
<td>New price Index 2004 = 100</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100</td>
<td>102.30</td>
</tr>
</tbody>
</table>

6. Following are the quarterly expenses of electricity (in thousands of rupees) of a company during five year period 2003 - 2007.

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>10</td>
<td>12</td>
<td>13</td>
<td>15</td>
<td>15</td>
<td>65</td>
</tr>
<tr>
<td>II</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>18</td>
<td>22</td>
<td>83</td>
</tr>
<tr>
<td>III</td>
<td>14</td>
<td>15</td>
<td>18</td>
<td>21</td>
<td>23</td>
<td>91</td>
</tr>
<tr>
<td>IV</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>18</td>
<td>20</td>
<td>77</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>54</td>
<td>60</td>
<td>73</td>
<td>80</td>
<td>316</td>
</tr>
</tbody>
</table>

a) Derive the equation of trend line
b) Find the trend value of each quarter
c) The quarterly seasonal index estimated from past experience is given below:

<table>
<thead>
<tr>
<th>Quarter</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seasonal Index</td>
<td>89.7%</td>
<td>104.8%</td>
<td>112.7%</td>
<td>92.8%</td>
</tr>
</tbody>
</table>

Isolate random variations.
7. a) A variable $x$ is distributed normally with standard deviation 7.8. Given that 90% of the cases are less than 40, find the mean of the distribution.

   b) A variable is distributed normally with mean 114.76. Given that 30% of the cases are greater than 120, find the standard deviation of the distribution.

8. a) A sport club has membership of 1000. It desires to estimate the average age of its members. A random sample of 16 members is taken and their ages are found as under:


   The club desires to be 95% confident that estimated average age will not differ from actual age by more than 5 years.

   How many more samples will be required for the desired confidence level and precision specification?

   b) Write short notes on F-distribution.

   c) How sampling bias occurs? Give one example.
<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>1.645</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>1.96</td>
<td>0.4750</td>
</tr>
<tr>
<td>1.00</td>
<td>0.3413</td>
<td>2.00</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

All questions carry 20 marks each.

1. Write short notes on any four of the following:-
   a) Free Cover Limit
   b) Index linked Pension Scheme
   c) Level Premium Term Assurance Scheme.
   d) Unit linked group gratuity Scheme.
   e) Contributory and Non-contributory Schemes.

   Marks
   5 each

2. a) What is primary object of Group Insurance Scheme? Distinguish between Group Insurance and Individual Insurance?
   b) A telephone call is received from Saint Xavier College, informing that their staff meeting is arranged at 4.30 pm on said day and as a Group Schemes Manager you have been called to address the meeting on Group Savings Linked Insurance Scheme offered by your company.

   Particulars of the college are :- It is a 50 year old college. Having total staff of 120, Break up of same is : Vice Principals – 4, Teaching Staff – 85, Clerical Staff – 18, Sub Staff – 12 and Principal – 1.

   Prepare detailed note highlighting following points :-
   i) Objective of Scheme
   ii) Eligibility conditions
   iii) Mode of Payment
   iv) Benefits on Superannuation/Death/Withdrawal
   v) Income Tax Benefits to employees
   vi) Data Required
   vii) Procedure for launching of the scheme.

   Marks
   10 each

3. a) State the main methods of arranging pension schemes? Briefly bring out the advantages and disadvantages of each scheme?
b) State Income Tax position indicating relevant sections of the Income-Tax Act, 1961
i) Commuted Value
ii) Pension to employee
iii) Employees contribution to approved superannuation fund.
iv) Pension to widow.
v) Interest on superannuation fund from the point of view of fund.

4. a) Under Group Life Insurance Scheme
   i) Group underwriting &
   ii) Experience Rating are 2 special features, explain these concepts.

b) ‘Gaurav’ Investments Pvt. Ltd., a company employing 550 employees approached your company with the proposal that they desire to provide following benefits through Group Insurance Scheme,
   i) Leave encashment facility (lump sum payment) to their employees or their dependants on retirement, death, disablement and voluntary retirement.
   ii) An insurance coverage on premature death of an employee.

Whether any Group Scheme to cover needs of employer can be offered, If so, guide the representative of company on following points :-
   i) Nature of Scheme & Liability
   ii) Benefits which can be covered.
   iii) Administration of the Scheme.
   iv) Income Tax Aspect
   v) Data required

5. a) Elaborate while funding gratuity liability through insurance Cash Accumulation system of securing the Benefits is more advantageous than the Pure Endowment System.

b) ‘Ashoka’ Marketing Pvt. Ltd., a company of 3 years old, Employees – 350 approached your company for introduction of Group Gratuity-cum Life Assurance Scheme under cash accumulation scheme. As a group insurance manager of your company guide the client on following points:-
   i) Salient Features of schemes offered by your company.
   ii) How it works?
   iii) Additional insurance coverage available to members.
   iv) Income-Tax benefit available to employer.
vi) Data required.

vii) Steps required to be taken for launching the scheme.

6. Describe the Applicability of Employees' Provident Fund and Miscellaneous Provisions Act of 1952, and the various methods available to an employer to take care of his liability under this act.

7. a) Discuss the statement, “Group Gratuity Scheme is a Tri-Partite Agreement”

b) Define the enhanced death benefit that is available under the above Tri-Partite Agreement.

8. a) Why “Social Security Schemes” are needed and what is the Government’s Role in this regard.

b) Examine the main features of “Janashree Bima Yojna” and “Shiksha Sahayog Yojana” of LIC of India.

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

Time: 3 Hours] [Total Marks : 100

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

1. a) What are the advantages and disadvantages of PML underwriting. 10 each
b) How is reinsurance helpful to an insurance company.

2. Write short notes on any five of the following – 4 each
   a) UNCTAD
   b) Cash Loss
   c) 72 Hours clause
   d) Acquisition Cost
   e) Claims made basis
   f) Unearned Premium Reserve
   g) Risk Based Capital
   h) Securitisation

3. What are the key considerations in arranging reinsurance negotiations? 20

4. a) Calculate the commission on Sliding Scale based on Earned premiums
   from following data :-
   Premium ceded during year
   Rs. 30,00,000
   Incoming Premium Reserve
   Rs. 10,00,000
   Outgoing Premium Reserve
   Rs. 12,00,000
   Losses paid during year
   Rs. 12,00,000
   Outgoing Loss Reserve
   Rs. 8,00,000
   Incoming Loss Reserve
   Rs. 6,00,000
   Rate of Commission is 25% if loss Ratio is 65% or more
   30% if loss Ratio is 50% to less than 65%
   40% if loss Ratio is than 50%
   Rs. 10,00,000 XS Rs. 5,00,000 from following data :
   M & D Premium - Rs. 10,00,000
   Brokerage - @ 10%
   Payable in 4 equal instalments.

   b) Prepare a Minimum and Deposit Premium Account rendered through Broker on Fire Excess Loss Cover - 2010 which pays

   5
5. a) What is the need for an efficient statistical system?
   b) State the guidelines for evolving of good statistical system.

6. Distinguish between Facultative and Treaty forms of Reinsurances.

7. a) What is sovereign rating?
    b) Is sovereign rating subordinate to individual company's rating? State reasons.
    c) Elaborate the key areas that a credit rating agency will look into.

8. What are the re-insurance aspects of Fire and Marine Classes of direct insurance business?

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

**RISK MANAGEMENT**

Time: 3 Hours] [Total Marks : 100

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

<table>
<thead>
<tr>
<th>Question</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Distinguish between the following :-</td>
<td>5 each</td>
</tr>
<tr>
<td>a) Private costs and Social costs.</td>
<td></td>
</tr>
<tr>
<td>b) Risk handling costs and Loss costs.</td>
<td></td>
</tr>
<tr>
<td>c) Pure risks and Speculative costs.</td>
<td></td>
</tr>
<tr>
<td>d) Risk avoidance and Risk reduction</td>
<td></td>
</tr>
<tr>
<td>2. a) What are the important points a check list needs to cover ?</td>
<td>10 each</td>
</tr>
<tr>
<td>b) What facts do organisation charts reveal ?</td>
<td></td>
</tr>
<tr>
<td>3. Identify the costs and benefits of loss prevention.</td>
<td>20</td>
</tr>
<tr>
<td>4. What are the major classifications of risk reduction measures ?</td>
<td>20</td>
</tr>
<tr>
<td>5. a) What is meant by a written risk management policy?</td>
<td>5</td>
</tr>
<tr>
<td>b) What are its objectives?</td>
<td>5</td>
</tr>
<tr>
<td>c) Give an outline of its contents.</td>
<td>10</td>
</tr>
<tr>
<td>6. Write short notes on :-</td>
<td>5 each</td>
</tr>
<tr>
<td>a) Ways of summarizing data graphically.</td>
<td></td>
</tr>
<tr>
<td>b) Difference between acceptable and unacceptable risks.</td>
<td></td>
</tr>
<tr>
<td>c) Captive Insurance Company.</td>
<td></td>
</tr>
<tr>
<td>d) Factors inhibiting the formation of Mutual Aid.</td>
<td></td>
</tr>
<tr>
<td>7. a) Explain the various methods of financing risks internally.</td>
<td>10 each</td>
</tr>
<tr>
<td>b) Explain 5 ratios used to analyse financial positions.</td>
<td></td>
</tr>
<tr>
<td>8. a) What are the reasons for buying insurance?</td>
<td>10 each</td>
</tr>
<tr>
<td>b) What are the limitations to the benefit of Insurance?</td>
<td></td>
</tr>
</tbody>
</table>

------ 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. ‘For a valid contract, there must be free consent of the parties concerned.’
   Discuss in detail the circumstances under which consent is said to be free. 20

2. Write short notes on:
   a) Contractual capacity of Married women.
   b) Wager
   c) Modes of discharge of contract.
   d) Accord and satisfaction

   5 each

3. a) Enumerate the circumstances under which an agency can be created.
   b) Discuss the power of a court in respect of an Arbitration award.

   10 each

4. What is a contract of guarantee? What are the rights and liabilities of the Surety?
   When does a surety is said to be discharged? 20

Section 'B'

5. a) Explain the inter-dependence of various factors of production.

   b) How the different costs influence the decisions regarding the quantity and
      quality of production at a particular time.

   10 each

6. a) What is Perfect competition?

   b) Compare Monopoly with Perfect Competition.

   10 each

7. What is Planned Economy? How does it differ from market Economy?
   According to you, which economy is good for a developing country like India? 20
8. The supply of a commodity depends not only on its price but also on several other factors which are collectively known as conditions of supply. What are the determinants of supply other than price.

----- END -----
MAY, 2010

FELLOWSHIP EXAMINATION
MARKETING AND PUBLIC RELATIONS

Time: 3 Hours] [Total Marks : 100

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>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

1. a) There is a view that policy conditions are not easily understood by policyholders and that the terms and conditions printed on the policy should be simplified to help prospects understand what they are buying. To what extent do you agree with this view? Discuss the issue keeping in mind both:
   i) the terms and conditions as printed in any particular policy and
   ii) the way policies are typically sold.

b) What are your thoughts about the scope of simplifying the policy conditions printed in policy documents?

2. Write short notes (about 50 words) on the following:
   a) Direct Marketing
   b) People are Managers
   c) Complaints
   d) Costs of Quality

3. a) You are the Branch Manager of an insurance company. You intend to do a campaign to increase the market share of your business in the district. Mention 10 activities that you can undertake as a part of the campaign.

b) State which of the 10, would be considered Market penetration and which would be Market development. Justify the answer.

4. Distinguish between:
   a) Delegation and Empowerment
   b) MCE and CEE
   c) Intangibility and Inseparability
   d) Breadth and Depth in Product Range.
5. a) Do you agree with the statement that the only competition faced by an insurer is from another insurer doing same kind of insurance business and no other? Discuss keeping in mind that there are many other financial institutions.

b) What is a Customer Charter? If you are called upon to make out a Customer Charter for your company, what are 10 points that you will include in it?

6. Out of the 7 Ps (Product, Price, Promotion, Place, People, Process and Physical factors), state which one (choose only one) is relevant for the following. Give reasons to justify the answer.
   a) Renovation of office premises using latest furniture.
   b) Designing new uniforms for all office staff.
   c) Taking part in a popular rural fair.
   d) Acquainting agents on the features of a product introduced recently
   e) Offering 10% discount in price because of opening of a new outlet.
   f) Offering 10% discount in price for purchases over Rs. 5000 in festival season.
   g) Music store selling tickets for a musical show in town.
   h) Insurer sponsoring a T.V. Serial.
   i) Motor car company offering extended warranties at concessional rates.
   j) Government allowing downloading forms and filing returns via Internet.

7. a) State at least 10 developments in the rural areas which indicate that the scope for selling insurance may have improved.

b) A company setting up a factory in a remote location does the following. Which of them would be Social Impact and which would be Social Responsibility?
   i) Financing an educated young person in the village to set up a petrol pump, which will serve the company’s vehicles as well.
   ii) Arranging for a medical team to visit the neighbouring villages once a fortnight.
   iii) Opening a school in the neighbourhood.
   iv) Opening an industrial training school in the neighbourhood.
   v) Providing for classes for women in the neighbourhood on hygiene and child care.
8. a) You have just taken over as the Branch Manager of an insurance office, with a staff of about 25 persons. You notice that the following issues need attention, apart from business being well behind the target. How would you prioritise them and what are the considerations for that decision?

i) There is always a queue in front of the cashier, who is slow, double checking every collection or payment.

ii) The computer operator is not skilled enough. Work is not up to date.

iii) The office is in a very crowded area in the centre of the business district, and therefore noisy and dusty. There is no air-conditioning and electricity fails very often, at least once every day.

iv) Head office has pointed out that the expenses of your Branch are well above norms as well as in comparison with other branches.

v) Your accounts officer has told you that the bank reconciliation works is in arrears, partly because the computer system is not up to date, and that any day the Head Office is likely to point out that the funds are not being transferred regularly.

b) How valid is the statement that all marketing is unethical? Even if true, to what extent would that apply to insurance marketing?

--- END ---
Question ONE is compulsory. Total questions to be attempted are FIVE. All questions carry 20 equal marks.

1. From the following Trial Balance as on 31.3.2009, of Sun 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>Annuities</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Advance Payment of Income Tax</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Agent Balance</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Building Dep. Account</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Claims less Reinsurance Paid :</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Death</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>By Maturity</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Cash with Banks on Current A/cs</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Commission</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Claims outstanding at the beginning of the year :</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Death</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>By Maturity</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Contingency Reserve</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Expenses of Management</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Furniture &amp; Office Equipments</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>House Property</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Income Tax</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Interest, Dividend &amp; Rent</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Loan on Mortgages</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Loan on Policies</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Life Assurance Fund at the beginning of the year</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>Printed Stationery</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Marks: 20
(Rs. in Lakhs)

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Debit Rs.</th>
<th>Credit Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sundry Debtors</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Sundry Deposits</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Share Capital</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Taxation Reserve</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Premium less Re-insurance</td>
<td></td>
<td>78</td>
</tr>
<tr>
<td></td>
<td><strong>202</strong></td>
<td><strong>202</strong></td>
</tr>
</tbody>
</table>

**Following are the adjustments to be made:**

a) Claims less reinsurance outstanding at the end of the year:
   i) By Death 5 Lakhs
   ii) By Maturity 10 Lakhs

b) Expenses outstanding Rs. 2 Lakhs and prepaid Rs. 1 Lakh

c) Premium outstanding Rs. 10 Lakhs and Commission there on Rs. 1 Lakh

d) The Company holds Rs. 2 Lakhs Central Govt. Securities (not included in the above balances) deposited by Contractors as security.

**OR**

1. The following is the Trial Balance of Star General Insurance Co. Ltd. as on 31.03.2009. You are required to prepare the related Revenue Accounts, Profit and loss Account, Profit and Loss Appropriation Account for the year ending 31st March 2009 and the Balance Sheet as on that date.

(Rs. in Lakhs)

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Debit Rs.</th>
<th>Credit Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share Capital</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Balance of funds at the begining of the year:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Insurance</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Marine Insurance</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Miscellaneous Insurance</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>General Reserve</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Claims Paid :-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td></td>
<td>68</td>
</tr>
<tr>
<td>Marine</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Misc.</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Particulars</td>
<td>Debit Rs.</td>
<td>Credit Rs.</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>Premium Less Insurance Ceded:-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Misc.</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Commission Paid :-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Misc.</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Expenses of Management :</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Misc.</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Claims Outstanding (as on 01.04.2008) :-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Misc.</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Audit fees</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Interest outstanding</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Amount due from Insurers</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Buildings</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Cash at Bank</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>460</strong></td>
<td><strong>460</strong></td>
</tr>
</tbody>
</table>

**Other information :-**

i) Claims outstanding as on (31.03.2009) :-
   a) Fire                                           | 10        |
   b) Marine                                         | 12        |
   c) Misc.                                          | 8         |

ii) Accrued Interest                                | 5         |

iii) Provide for unexpired risk reserve at 50% for Fire and Miscellaneous Insurance and at 100% in Marine Insurance.

iv) Market value of Investments                      | 70        |
2. a) Mention the various applications of Marginal Costing Technique.
   b) i) ABC Ltd. produces electronic components with a selling price per unit of Rs. 100.
       ii) Fixed cost amount to Rs. 2,00,000.
       iii) 5,000 units are produced and sold each year.
       iv) Annual profits amount to Rs. 50,000.
       v) The company's all equity financial assets are Rs. 5,00,000

The company proposes to change its production process adding Rs. 4,00,000 to investment and Rs. 50,000 to fixed operational cost.

The consequences of such a proposal are:
   i) Reduction in variable cost per unit by Rs. 10
   ii) Increase in output by 2000 units.
   iii) Reduction of selling price per unit to Rs. 95.

Assuming an average cost of capital 10%, examine the above proposal and advise whether or not the company should make the change. Also measure the degree of operating leverage and break even point.

3. The monthly budgets for manufacturing overhead of a concern for two levels of activity were as follows:

<table>
<thead>
<tr>
<th>Capacity</th>
<th>60%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs.</td>
<td>Rs.</td>
</tr>
<tr>
<td>Budgeted production (units)</td>
<td>600</td>
<td>1000</td>
</tr>
<tr>
<td>Wages</td>
<td>1,200</td>
<td>2,000</td>
</tr>
<tr>
<td>Consumable stores</td>
<td>900</td>
<td>1,500</td>
</tr>
<tr>
<td>Maintenance</td>
<td>1,100</td>
<td>1,500</td>
</tr>
<tr>
<td>Power and Fuel</td>
<td>1,600</td>
<td>2,000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>4,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Insurance</td>
<td>1,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

You are required to:

   i) indicate which of the items are fixed, variable and semi-variable.
   ii) prepare a budget for 80% Capacity.
4. a) Even if Trial Balance totals agree, some errors may still remain undetected. 
- Discuss
b) Z Ltd. uses standard costing system in manufacturing of its product 'P'.
The standard cost per unit of 'P' is as follows:

\[
\begin{array}{cc}
\text{Direct Material} & 3 \text{ kgs} \times \text{Rs. 8 per kg.} \\
\text{Direct Labour} & 1 \text{ hour} \times \text{Rs. 5 per hour} \\
\text{Variable Overhead} & 1 \text{ hour} \times \text{Rs. 4 per hour}
\end{array}
\]

\[
\begin{array}{c}
24 \\
5 \\
4 \\
\hline
33
\end{array}
\]

During January 2010, 8000 units of 'P' were produced and the related data are as under:

\[
\begin{array}{cc}
\text{Direct Material acquired} & @ \text{Rs. 7 per kg.} \\
\text{Material consumed} & \text{Rs. 28000} \\
\text{Direct labour} & ? \text{ hours @ Rs. ? per hour} \\
\text{Variable overhead incurred} & \text{Rs. 32800}
\end{array}
\]

The variable overhead efficiency variance is Rs. 1,200 adverse. Variable overheads are based on direct labour hours. There was no stock of raw material in the beginning.

You are required to compute the missing figures (Direct Labour hour and the rate per hour) and work out all the relevant variances.

5. A Company is considering which of two mutually exclusive projects it should undertake.

The Finance Director thinks that the project with higher NPV should be chosen whereas the M. D. thinks that the one with higher IRR should be undertaken as both projects have same initial outlay and length of life.

The company anticipates a cost of Capital of 10% and the net after tax cash flows of the projects are as follows:

\[
\begin{array}{c|ccccc}
0 & 1 & 2 & 3 & 4 & 5 \\
\hline
\text{Cash Flows} & & & & & \\
\text{Project A} & \text{(200)} & 35 & 80 & 90 & 75 & 20 \\
\text{Project B} & \text{(200)} & 218 & 10 & 10 & 4 & 3 \\
\end{array}
\]

\text{Required:}

a) Calculate the NPV and IRR of each project.
b) State, with reasons, which project you would recommend.
c) Explain the inconsistency in the ranking of the two projects.
The discount factors are as follows:

(Rs. '000)

<table>
<thead>
<tr>
<th>Year</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount Factors</td>
<td>1</td>
<td>0.91</td>
<td>0.83</td>
<td>0.75</td>
<td>0.68</td>
<td>0.62</td>
</tr>
<tr>
<td>(10%)</td>
<td></td>
<td>1</td>
<td>0.83</td>
<td>0.69</td>
<td>0.58</td>
<td>0.48</td>
</tr>
<tr>
<td>(20%)</td>
<td></td>
<td>1</td>
<td>0.83</td>
<td>0.69</td>
<td>0.58</td>
<td>0.48</td>
</tr>
</tbody>
</table>

6. You are given the following data for the year ended 31st March, 2008 of XYZ Ltd.

<table>
<thead>
<tr>
<th>Item</th>
<th>(Rs.)</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Cost</td>
<td>6,00,000</td>
<td>60</td>
</tr>
<tr>
<td>Fixed Cost</td>
<td>3,00,000</td>
<td>30</td>
</tr>
<tr>
<td>Net Profit</td>
<td>1,00,000</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total :-</strong></td>
<td><strong>10,00,000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Find out Break-even point, P.V. ratio and margin of safety.

7. Write short notes on the following:
   a) Capital Reserve/Revenue Reserve
   b) Leverage Ratio
   c) Renewal Expenses Ratio (R E R)
   d) Reserve for unexpired risks
   e) Reserve for claims incurred but not reported (I B N R)

8. a) Discuss the following:
    i) Budget and Budgetary Control System
    ii) Merits and limitations of budgeting.
   b) Mention the different types of budgets based on different basis of classification of budgets.

-----THE END-----
FELLOWSHIP EXAMINATION
HUMAN RESOURCES MANAGEMENT

Time: 3 Hours                        [Total Marks : 100

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

1. a) What should be the essential characteristics of an objective? Marks 4
     b) State six objectives which a Managing Director may lay down for an
        insurance company for the current year.                           6
     c) State with reference to i) the HR and ii) any other department of the same
        insurance company, two objectives each and also explain how these two
        objectives contribute to the objectives laid down by the MD.        10

2. a) How would you expect a manager, believing in Douglas McGregor’s
    Theory Y, to react to a subordinate who remains absent on a day when he
    was required to complete an important assignment? 5
    b) Discuss the purpose and effectiveness of the following practices.
       i) Transferring an employee to a distant office, because he is found to
          be lethargic.                                                   5 each
       ii) Conducting both group dynamics exercises and personal interviews
            during selection process.                                    
       iii) Not informing appraises about the contents of the annual appraisal.

3. a) If you are asked to do a Job Analysis in your department, how would you
     go about it? State actual steps you will take and not merely concepts. 10 each
     b) It is said that, while recruiting, the academic qualifications, academic
        performance and experience of the candidate should be specified. Explain.
        i) how each one of these is different from the others
        ii) how each one of them can be assessed and
        iii) how each one of them reflect suitability to do a particular job. (discuss
             with reference to any job in an insurance office)

4. a) It is said that human resources are the only assets that do not depreciate.
     Explain this statement.                                           5
     b) To what extent is a manager responsible if his subordinate ‘depreciates’? 7
     c) How can the potential of an employee be known?                  8
5. How valid are the following statements?
   a) It is important for every manager to know Maslow's Hierarchy of Needs.
   b) The designation provides the 'Sense of Identity' that influences motivation.
   c) Flexi-time will improve work in offices of insurance companies in India.
   d) Written communication is always better than oral communication.

6. a) In a new organization, all communication between employees is via e-mails. The employees do not meet each other or have meetings. Would you like to work in such an office? If not, explain what you would be missing.
   b) Which of the methods of job evaluation would be useful for an insurance company? Would more than one method be necessary?

7. a) It is claimed that an effective manager will not be required to know the rules of discipline. Do you agree? Justify your answer.
   b) How can stress be useful? Give examples from office situations and elsewhere.
   c) Is stress within one's control or is it forced on one by others?

8. a) What do you understand by the word 'climate' in an office?
   b) Who is responsible for the climate in department in a Branch Office? Explain how.
   c) Both Accommodation and Compromise strategies amount to surrender in a conflict situation. Discuss how valid is this statement.

-----THE END-----
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. Define ‘State.’ Give a brief resume of the fundamental rights enshrined under the constitution. Is social justice different from Natural Justice?

2. a) “Different authorities are constituted under the Industrial Disputes Act preserving harmonious relations between the employer and workmen and for promoting settlement or adjudication of Industrial Dispute.” Enumerate the various authorities provided under the Act of the above purpose.
   b) What was the ratio laid down by the supreme court in the case of Bangalore Water Works?

3. Individual Dispute and Industrial Dispute are quite different. Elaborate the statement with reference to decided cases on the subject; with special mention of Express News-Papers’ case, Workers of Dharampal Chand and Bombay Union of Journalists V/s the Hindu.

4. a) Define Industry as stated in Section 2J of I.D. Act.
   b) Explain the SC Decision in Bangalore Water Works case. Briefly mention and explain the cases where the SC overruled HC Decisions.

5. Write short notes on (any four) :-
   a) Continuous service
   b) Sec 33A of IDA
   c) Jurisdiction of Courts.
   d) Rest Interval
   e) Notional Extension Theory

   Marks
   20
   12
   8
   20
   6
   14
   5 each
6.  a) Define Award. When does an award commence? Enumerate the persons on whom settlement and awards are binding.
   b) What were the issues decided by the supreme court in the case of A.V. Nachne V/s Union of India?

7.  a) Define 'Wages' under the Payment of Wages Act.
   b) What are the important provisions of Shops and Establishment Acts?

8. Define and describe in detail the provisions relating to unfair labour practice.
# 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.)

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Discuss about the impact of Information Technology in Insurance Industry.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>a) Windows XP operating system is popular and still having a large no. of installations in spite of the later releases of Windows. Elaborate.</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>b) State the features of Microsoft outlook.</td>
<td>8</td>
</tr>
<tr>
<td>3.</td>
<td>a) What is data warehousing? Describe the advantages of data warehousing.</td>
<td>10 each</td>
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<tr>
<td></td>
<td>b) OLAP is an important Business Intelligence tool. List out the various features of OLAP.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Write short notes on :-</td>
<td></td>
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<tr>
<td></td>
<td>a) Data Definition Language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Pentium processor</td>
<td></td>
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<td></td>
<td>c) Wi-Fi and Bluetooth</td>
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<td></td>
<td>d) Inkjet printers.</td>
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<td>5.</td>
<td>a) Explain the Wide Area Networking. Also list out the benefits of WAN.</td>
<td>12</td>
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<td></td>
<td>b) How does WAN differentiate with LAN.</td>
<td>8</td>
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<td>6.</td>
<td>Narrate (with some examples) as to how Object Oriented Programming is different from Conventional Programming.</td>
<td>20</td>
</tr>
<tr>
<td>7.</td>
<td>a) Firewall has become an important feature in the IT security implementation of an organisation. Explain.</td>
<td>12</td>
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<td></td>
<td>b) Specify the functions of an anti-virus software.</td>
<td>8</td>
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<tr>
<td>8.</td>
<td>a) An operating system manages important operations like Memory allocation and processes. Discuss.</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>b) State the relevance of Systems Audit.</td>
<td>8</td>
</tr>
</tbody>
</table>

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

**ASSET MANAGEMENT**

**Time: 3 Hours**

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

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Elaborate the key economic variables that an investor must monitor in order to carry out his fundamental analysis.</td>
<td>20</td>
</tr>
<tr>
<td>2. a)</td>
<td>Explain the need for portfolio analysis with reference to a mutual fund.</td>
<td>10 each</td>
</tr>
<tr>
<td>2. b)</td>
<td>What are the problems in managing a portfolio?</td>
<td></td>
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<tr>
<td>3. a)</td>
<td>What are the two types of risk of a security?</td>
<td>5</td>
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<tr>
<td>3. b)</td>
<td>Capital Asset Pricing Model measures the relationship between the risk of a security and its expected returns – Discuss.</td>
<td>15</td>
</tr>
<tr>
<td>4. a)</td>
<td>What are the problems in portfolio Management?</td>
<td>15</td>
</tr>
<tr>
<td>4. b)</td>
<td>Define stock splits.</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>Define the following:</td>
<td>4 each</td>
</tr>
<tr>
<td>5 a)</td>
<td>Grooming and switches in the gilt market.</td>
<td></td>
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<tr>
<td>5 b)</td>
<td>Dividend Yield</td>
<td></td>
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<tr>
<td>5 c)</td>
<td>Risk – Return Trade off</td>
<td></td>
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<tr>
<td>5 d)</td>
<td>Currency Risk</td>
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<tr>
<td>5 e)</td>
<td>Preferred stock</td>
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<tr>
<td>6.</td>
<td>Describe the major functions of the Reserve Bank of India.</td>
<td>20</td>
</tr>
<tr>
<td>7.</td>
<td>Mutual Funds play a crucial role in the financial markets by mobilising the domestic savings and giving them decent returns – Discuss highlighting the need for mutual funds and advantages of investing through them.</td>
<td>20</td>
</tr>
</tbody>
</table>
8. Write short notes: (Any four)
   a) Asset Management
   b) Solvency Margin
   c) Moving Averages
   d) Government Securities
   e) Risk Penalty

------ END ------