Fellowship

EXAMINATION
QUESTION
PAPERS
NOV. 2007

INSURANCE INSTITUTE OF INDIA

Universal Insurance Building,
Sir P. M. Road, Fort,
Mumbai - 400 001

Price Rs. 10/-
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) Prove by general reasoning and algebraically that:
   \[ id = i - d \]

b) Write short note on equation of value.

c) Mr. B has taken loan of Rs. 10,000 at a rate of interest 6% p.a. payable half yearly. He repaid Rs. 2,000 after 3 years, a certain sum after 6 years and cleared all remaining dues of Rs. 8,857.22 at the end of 8 years from the commencement of the transaction. What is the certain sum paid by him at the end of 6 years?

   Given:
   \[ (1.03)^{16} = 1.60471, \quad (1.03)^{18} = 1.34392, \]
   \[ (1.03)^{6} = 1.19405, \quad (1.03)^{4} = 1.12551 \]

d) Prove that
   \[ \frac{S}{t} + \frac{a}{n+1} = (1+i)^t \frac{a}{n} \]

2. a) A borrower agrees to repay a loan of Rs. 6,000 by 15 annual repayments of Rs. 1,000, the first repayment instalment being due after 5 years. Find the annual yield for this transaction.

   Given that:
   \[ a_{19} = 8.9501 \quad @ \quad 9\% \quad a_{19} = 9.6036 \quad @ \quad 8\% \]
   \[ a_{4} = 3.2397 \quad @ \quad 9\% \quad a_{4} = 3.3121 \quad @ \quad 8\% \]

b) Prove that:
   \[ \frac{1}{a_{n}} = \frac{1}{s_{n}} + i \]

   algebraically and also by general reasoning
c) A loan of Rs. 12,000 repayable by level yearly instalments of principal and interest in arrear over 10 years, was granted 4 years ago. Interest on the loan was @ 8% p.a. effective. Immediately after payment of the fourth instalment, the borrower requests that the principal then outstanding shall be repaid by level instalments of principal and interest payable yearly in arrear over the next 8 years. The lender agrees to this proposal on the condition that the revised instalment shall be such as to give him a return on the whole transaction, from the time when the original loan was granted until it is finally repaid, of 9% p.a. effective. Calculate the revised instalment.

Given that: \[ @ 8\% \ a_{10} = 6.7101, \quad (1.09)^4 = 1.41158 \text{ and } \]
\[ @ 9\% \ a_{8} = 5.5348 \]

3. a) The probability that a person aged 35 years dies in 5 years is 0.05, that a person aged 40 dies in 5 years is 0.06 and that a person aged 45 years dies in 5 years is 0.08. Find the probability that of the three persons aged 35, 40 and 45 years respectively.
   i) exactly one survives 5 years
   ii) the person aged 35 dies between ages 45 and 50
   iii) at least one survives 5 years
   iv) at least one dies in 5 years.

b) **Write down expression in terms of \( lx \) function for the probability that out of the three lives aged 50 years and four lives aged 60 years, only two lives aged 50 and one life aged 60 survive 15 years.**

c) **The total population of city is 70 lakhs.** Assuming that it is a stationary population experiencing \( H^m \) mortality, find
   i) The number of persons who are aged 35 years or more but less than 55 years.
   ii) The number of persons who have not attained the majority i.e. who are less than 21 years of age.

Given:
\[ T_0 = 6082031, \quad T_{35} = 2674686, \quad T_{55} = 1126680, \]
\[ T_{21} = 3948451. \]
4. a) An employee of an institution has to retire at age 60. A gratuity benefit of one month's salary for each year of service subject to a maximum of benefit of 20 months' salary is payable to an employee on retirement or death, as the case may be.

Find the probability that:

i) full gratuity benefit will be payable to a person aged 30, who has just now completed 10 years of service.

ii) the gratuity benefit will not exceed 15 months' salary.

iii) the gratuity benefit payable will be at least 17 months' salary.

iv) the employee earns at least 17 months' salary as gratuity benefit payable at death.

Given that:

\[ l_{x0} = 980776, \quad l_{x5} = 973550, \]
\[ l_{x7} = 969941, \quad l_{x60} = 963206 \]
\[ l_{n0} = 811640 \]

b) Fill up the blanks in the following portion of a life table.

<table>
<thead>
<tr>
<th>Age ( X )</th>
<th>( l_x )</th>
<th>( d_x )</th>
<th>( q_x )</th>
<th>( p_x )</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>999999</td>
<td>..........</td>
<td>0.00132</td>
<td>..........</td>
</tr>
<tr>
<td>16</td>
<td>..........</td>
<td>..........</td>
<td>0.00131</td>
<td>..........</td>
</tr>
<tr>
<td>17</td>
<td>..........</td>
<td>1306</td>
<td>..........</td>
<td>..........</td>
</tr>
<tr>
<td>18</td>
<td>..........</td>
<td>..........</td>
<td>0.99870</td>
<td>..........</td>
</tr>
<tr>
<td>19</td>
<td>..........</td>
<td>..........</td>
<td>0.00130</td>
<td>..........</td>
</tr>
</tbody>
</table>

5. a) Explain the 'calendar year method' of mortality investigation and enumerate its advantages and disadvantages.

b) A person aged 45 had taken a 20 year 'educational annuity' when he was 25 years old. The annuity of Rs. 1,000 per half-year for five years commencing after six months is due to him now. He desires to have lumpsum payment in lieu of ten half-yearly payments. Find the present value of the benefits at 6% p. a. interest.

Given that: \[ a_{\frac{5}{5}} = 4.2124 \] @ 6%

\[ (1.06)^{\frac{1}{2}} = 1.029563 \]
c) Show that: 
\[ a_{x\mid n} - a_{x\mid n-1} = \frac{Dx + n}{Dx} \]

6. a) Calculate for a life aged 35, the net annual premium in each of undermentioned cases:

i) A Double Endowment Assurance for 20 years for basic sum assured of Rs. 1,00,000.

ii) A 15 year assurance under which the benefit on death during the term is twice that payable on survival to the end of the term.

iii) Endowment Assurance for 20 years premium limited to 15 years.

iv) Deferred Temporary Assurance - the assurance to commence at age 50 and then to continue for next 5 years.

Given:
\[
\begin{align*}
M_{35} &= 18747 \\
N_{35} &= 1906522 \\
D_{35} &= 126664 \\
M_{50} &= 14654 \\
N_{50} &= 623195 \\
D_{50} &= 49929 \\
M_{55} &= 12716 \\
N_{55} &= 403807 \\
D_{55} &= 35573
\end{align*}
\]

b) Calculate the single premium under a two year temporary Assurance for sum assured of Rs. 1,00,000 on a person aged 45. Provide for expenses of 9% of single premium and 2% of sum assured.

Given:
\[
\begin{align*}
M_{45} &= 16285 \\
M_{47} &= 15669 \\
D_{45} &= 68774
\end{align*}
\]

c) Write down the expression for office premium for a without profit endowment assurance for sum assured of Rs. 25,000 to a person aged 30 years and for term of 20 years. First year expenses are \( l_1 \) per unit of premium and \( l_2 \) per unit of sum assured and renewal expenses relating to subsequent years are \( k_1 \) per unit of premium and \( k_2 \) per unit of sum assured. Also \( Q \) per unit sum assured as constant addition for contingencies purpose.

7. a) A Life office issues a special Marriage Endowment (with profit) policy under which the sum assured with bonus (at the rate of 'b' per annum per unit sum assured) is payable on completion of the term 'n' years, irrespective of the survival or death of the life assured till the end of the term. In case of death before the expiry of the term, an additional amount equivalent to the sum assured is payable and the subsequent
premiums are waived; however, the policy will continue to earn bonus. The benefit are secured by the annual premiums payable in advance during the term of the policy.

i) Write an expression for the annual premium.

ii) Derive expressions for retrospective reserves at the end of 1st year, 2nd year and tth year (t < n).

iii) Write an expression for prospective reserves at the end of tth year and show that this equals retrospective reserves derived under (ii) above. Ignore Expenses.

b) Calculate the net annual premium for an Endowment Assurance of Rs. 25,000 for a period of 25 years for a person aged 30, on LIC (1970-73) ultimate mortality basis @6%

Given that: \[a_{30} : 2 \hat{a} = 12.253\]

8. a) Calculate the net annual premium ceasing after 15 years or at previous death for a Money Back Policy on a life aged 40 years, to secure the following benefits.

i) Rs. 5,000 on survivance to the end of 10 years.

ii) Rs. 10,000 on survivance to the end of 15 years.

iii) Rs. 15,000 on death any time within 15 years.

Given at 6%:

\[N_{40} = 1343014\]
\[D_{40} = 93645\]
\[D_{55} = 35573\]
\[M_{55} = 12716\]

b) Given that the rate of interest is 4.5638% and \(a_x = 8.0142\), Find the value of \(A_x\) and \(P_x\)

c) Prove that \(A_{x+t} = \frac{D_x}{D_{x+t}} \left\lfloor P - A_{x+t} \right\rfloor\)

----- 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) Two Cards are drawn at random from a well shuffled pack of 52.
   Find the probability of drawing 2 aces.
   Marks
   2

   b) From each of the three married couples, one of the partners is selected at
   random. What is the probability of choosing two men and one woman?
   Marks
   4

   c) A coin is tossed five times. What is the probability of getting at least
   one head?
   Marks
   4

   d) A bookcase has 3 shelves. The first shelf has 24 books of which 4 are
   with green cover. The second shelf has 16 books of which 4 are with
   green cover. And the third shelf has 8 books of which 4 are with
   green cover. A shelf is chosen at random and a book is selected at
   random from that shelf and found to be with a green cover. What is the
   probability that it came from the first shelf?
   Marks
   10

2. a) Calculate correlation and regression co-efficients for the following
   data.
   Marks
   10

<table>
<thead>
<tr>
<th>X</th>
<th>30</th>
<th>60</th>
<th>90</th>
<th>120</th>
<th>150</th>
<th>180</th>
<th>210</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>60</td>
<td>30</td>
<td>75</td>
<td>150</td>
<td>60</td>
<td>165</td>
<td>180</td>
</tr>
</tbody>
</table>

   b) Find the equations of regression lines.
   Marks
   6

   c) Find the estimate of Y when X = 195.
   Marks
   2

   d) Find the estimate of X when Y = 120.
   Marks
   2

3. a) A box contains 25 balls of which 15 are white and 10 are red. After
    shaking the box well, one ball is drawn at random, its color is noted
    and the ball is replaced in the box. The process is repeated 5 times.
    i) What is the probability that on 2 occasions the ball drawn is
    white?
    Marks
    12
ii) What is the probability that the ball drawn is white on not more than two occasions?

iii) What is the probability that the ball drawn is red on not less than 4 occasions?

iv) What is the probability that the ball drawn is red on at least one occasion?

b) A die, with faces numbered 4, 7, 10, 13, 16 and 19 is rolled. If the random variable $x$ is defined as the number coming up on the top, find the expected value and variance of $x$.

4. Eight lenses were selected at random from each of the five cases of lenses. The refractive index of each of the chosen lenses was measured. The refractive index of Lenses were as follows:

<table>
<thead>
<tr>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
<th>Case 4</th>
<th>Case 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.503</td>
<td>1.516</td>
<td>1.507</td>
<td>1.523</td>
<td>1.520</td>
</tr>
<tr>
<td>1.521</td>
<td>1.525</td>
<td>1.521</td>
<td>1.520</td>
<td>1.517</td>
</tr>
<tr>
<td>1.522</td>
<td>1.520</td>
<td>1.528</td>
<td>1.511</td>
<td>1.506</td>
</tr>
<tr>
<td>1.513</td>
<td>1.508</td>
<td>1.518</td>
<td>1.517</td>
<td>1.511</td>
</tr>
<tr>
<td>1.499</td>
<td>1.519</td>
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<td>1.522</td>
<td>1.514</td>
</tr>
<tr>
<td>1.512</td>
<td>1.500</td>
<td>1.513</td>
<td>1.520</td>
<td>1.521</td>
</tr>
<tr>
<td>1.524</td>
<td>1.522</td>
<td>1.514</td>
<td>1.523</td>
<td>1.510</td>
</tr>
<tr>
<td>1.519</td>
<td>1.522</td>
<td>1.518</td>
<td>1.517</td>
<td>1.499</td>
</tr>
</tbody>
</table>

Test whether the refractive index varies from case to case significantly, using the method of ‘Analysis of Variance’.

Given that $F_{0.05} = 2.64$ for degrees of freedom 4 and 35.

5. a) Given below is the distribution of 140 candidates obtaining marks $X$ or higher in a certain examination (All marks are given in whole numbers).

<table>
<thead>
<tr>
<th>X</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Frequency</td>
<td>140</td>
<td>133</td>
<td>118</td>
<td>100</td>
<td>75</td>
<td>45</td>
<td>25</td>
<td>9</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Find Mean, Median, Mode and Standard Deviation for the above distribution.
b) Four parts of a distribution are as follows:

<table>
<thead>
<tr>
<th>Part</th>
<th>Frequency</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>61</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>70</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>120</td>
<td>80</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>30</td>
<td>83</td>
<td>8</td>
</tr>
</tbody>
</table>

Find the Mean and Std. Deviation of the complete distribution.

5. a) Two manufacturers of electric light bulbs presented their products (samples) for testing length of life of the bulb. Following data were obtained.

<table>
<thead>
<tr>
<th></th>
<th>Company A</th>
<th>Company B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>n₁ = 8</td>
<td>n₂ = 7</td>
</tr>
<tr>
<td>Sample mean</td>
<td>x₁ = 1234 hrs</td>
<td>x₂ = 1036 hrs</td>
</tr>
<tr>
<td>Sample S.D.</td>
<td>S₁ = 36 hrs</td>
<td>S₂ = 40 hrs</td>
</tr>
</tbody>
</table>

Company A claims that their product has longer life than that of B. As a statistician will you agree with this claim? Derive your conclusion stating specific null hypothesis and alternative hypothesis.

Given: \( t_{0.05} = 1.77 \) (13 d.f) for right tailed test.

b) In case of another company C, also manufacturing electric light bulbs, a sample of 16 bulbs was taken which gave average life of the bulb to be 1250 hrs. Population s.d. for Company C is known to be 32 hrs.

i) Find 90% confidence interval for the population mean.

ii) What should be minimum size of the sample, in order to be 90% confident that the difference between population mean and the sample mean will be less than 5 hrs.

7. a) State & explain in short, the four components of a Time Series. What classical assumption is made about the relationship between the components?

b) In case of time series data, if secular trend is believed to follow a straight line, state the equation of this straight line, by clearly defining variables and constants in the equation.

[You are expected to use Method of Least Squares]

If we choose mid point of the time frame as the origin, what is the effect on the constants?
8. a) Find the missing value of y, if Laspeyres' and Paasches Index Numbers for price is the same for the following data:

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Base</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Price</td>
<td>Quantity</td>
</tr>
<tr>
<td>A</td>
<td>7</td>
<td>32</td>
</tr>
<tr>
<td>B</td>
<td>10</td>
<td>40</td>
</tr>
</tbody>
</table>

b) After finding y, calculate following Index Numbers for the same data.
   i) Value Index
   ii) Fishers Price Index
   iii) Laspeyres' Quantity Index
   iv) Paasche's Quantity Index.
   v) Fishers Quantity Index.

c) Explain the term 'Splicing' in connection with the theory of Index Numbers.

<table>
<thead>
<tr>
<th>X</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>0.0199</td>
</tr>
<tr>
<td>0.1</td>
<td>0.0398</td>
</tr>
<tr>
<td>0.2</td>
<td>0.0793</td>
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<tr>
<td>0.3</td>
<td>0.1179</td>
</tr>
<tr>
<td>0.4</td>
<td>0.1554</td>
</tr>
<tr>
<td>0.5</td>
<td>0.1915</td>
</tr>
<tr>
<td>0.6</td>
<td>0.2257</td>
</tr>
<tr>
<td>0.7</td>
<td>0.2580</td>
</tr>
<tr>
<td>0.8</td>
<td>0.2881</td>
</tr>
<tr>
<td>0.9</td>
<td>0.3159</td>
</tr>
<tr>
<td>1.0</td>
<td>0.3413</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>X</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>0.3643</td>
</tr>
<tr>
<td>1.2</td>
<td>0.3849</td>
</tr>
<tr>
<td>1.3</td>
<td>0.4032</td>
</tr>
<tr>
<td>1.4</td>
<td>0.4192</td>
</tr>
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<td>0.4332</td>
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<td>0.4452</td>
</tr>
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<td>0.4500</td>
</tr>
<tr>
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<td>0.4750</td>
</tr>
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<td>2.00</td>
<td>0.4772</td>
</tr>
<tr>
<td>2.58</td>
<td>0.4951</td>
</tr>
<tr>
<td>3.0</td>
<td>0.4987</td>
</tr>
</tbody>
</table>
NOVEMBER, 2007

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. a) What are the segments of Group Schemes market? Examine the potential for business of each segment.

   Marks: 10

   b) Examine the relevance of insurable interest for effecting Master Policies under Group Schemes.

   Marks: 10

2. a) "As compared to Self-Managed Gratuity Fund, LIC-managed Gratuity Fund is more beneficial". Discuss the statement with reference to Group Gratuity Scheme of LIC OF INDIA.

   Marks: 10

   b) In the following example calculate:

   i) Death Gratuity payable under Gratuity Act

   ii) Death Gratuity payable under Group Gratuity Scheme of LIC.

   Marks: 10

   **Data:**

   Employee's date of joining service - 26.4.1995
   Employee's date of birth - 15.4.1960
   DOC of Group Gratuity Scheme - 1.4.1992
   Date of last renewal of the scheme - 1.4.2005
   (Basic + D.A.) salary of employee on renewal date - Rs. 12,500
   Date of Death of employee - 27.8.2005
   (Basic + D.A.) Salary of employee as on date of death - Rs. 15,700
   Retirement age - 60 years

   Scale of Gratuity 15 days salary for each year of service (i.e as per Gratuity Act).

3. a) What are the advantages of getting a superannuation Scheme approved under Part 'B' of the Fourth Schedule of the Income Tax Act, 1961?

   Marks: 10

   b) Discuss the various plans suitable for funding pension benefits.

   Marks: 10
4. Volvo Tech Net Ltd. is a private company interested in introducing Group Savings Linked Insurance Scheme for its 80 employees. As a Manager of Pension & Group Schemes, how will you advise them on the following topics:
   a) **Object of the scheme**
   b) **Contributions**
   c) **Participation conditions**
   d) **How contributions are dealt with**
   e) **Benefits both on retirement and on premature death**
   f) **Tax Benefits**
   g) **Data Required**

5. "Group Life Insurance with all its simplicity and low cost cannot justify its real utility if it fails to benefit the socially and economically weaker sections of the society." Discuss taking into consideration unorganised sector engaged in Rural and Urban areas.

6. a) What are the conditions to be fulfilled by an establishment for obtaining 10 each exemption from the provisions of the Employees Provident Funds and Miscellaneous Provisions Act, 1952?
   b) What are the conditions to be fulfilled by a Provident Fund to qualify for recognition under the Income-tax Act, 1961?

7. State the income tax position from the point of view of both an employee and employer (wherever applicable) in regards to the following, including the relevant sections of the Income Tax Act, 1961:
   a) Annual contribution made by an employee and employer under a Contributory Group superannuation Scheme.
   b) Death benefit received under GSLI scheme consisting of risk cover sum assured and savings portion with accumulated interest.
   c) Employer's contribution towards fourth yearly instalment of single premium towards Past Service Gratuity Liability.
   d) Commuted Value payable under Group Superannuation Scheme.

8. Write short notes on:
   a) Transfer of equitable interest
   b) Contributory Scheme
   c) Shortfall in gratuity on withdrawal
   d) Advantages of annual Premium Costing

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

Time: 3 Hours] [Total Marks : 100

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

1. Discuss IRDA Regulations on maintenance and submission of statistics, accounts and underwriting issues relating to re-insurance transactions .

2. a) Explain the operation of a Facultative obligatory treaty and its uses .
b) What is Risk Excess of Loss Cover and what are its uses ?

3. What are the risk factors considered for determining the schedule of retentions for property insurance ?

4. Prepare first quarter, 2007 treaty account for Company 'A' on Fire Surplus Treaty from the following data :
   Premium : Rs. 2,00,000
   Portfolio Entry :-
   Premium : Rs. 3,00,000
   Loss : Rs. 1,50,000
   Commission : 40%
   Taxes & charges : 1%
   Excess loss premium : 1%
   Claims paid : Rs. 50,000
   Excess loss recovery : Rs. 10,000
   Premium Reserve : 40%
   Credit for cash loss paid : Rs. 5,000

5. "A reinsurance programme for insurance business manifests various interests which form part of the corporate philosophy of an insurer". Elaborate this statement.

6. a) Identify the main reasons why a direct insurer write inward re- each insurance business .
b) What are the issues considered in drawing up of an underwriting policy for re-insurance ?

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7. Write short notes on **any four**: 
   a) Profit Commission
   b) Probable Maximum Loss
   c) Credit Rating
   d) National Re of India
   e) Re-insurance documentation
   f) Alternative Risk Financing

8. "The use of Communication and Information Technology has transformed the statistical and procedural aspects of re-insurance business" Substantiate this statement.

------ END ------
FELLOWSHIP EXAMINATION
RISK MANAGEMENT

Time: 3 Hours] [Total Marks : 100
Answer any FIVE questions only.
All questions carry 20 marks each.

1. "Industrial and commercial firms associated with the conduct of any business are in addition exposed to other uncertainties" - what are these additional risks? Explain each in detail. 20

2. Risk management process involves three elements in a logical sequence – discuss with illustration. 20

3. What is Input-Output analysis? How does it differ from Flow Charts? 20

4. Discuss how statistical methods can be employed for quantification and analysis of risks? 20

5. Write short notes on:
   a) Personal Risk Management
   b) Corporate Risk attitudes
   c) Risk and Insurance Manuals
   d) Organization Charts

   5 each

6. Discuss the pros and cons of buying commercial insurance from the point of view of a corporate firm. 20

7. a) Explain the role of general management in risk management. 5
   b) Describe role of functional management in the areas of Finance, Production, Materials, Legal and Personnel in risk management process. 15

8. Write Short Notes on:
   a) Subjective probability
   b) Risk avoidance
   c) Statistical inference
   d) Contingency Funds

   5 each

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

14
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) Briefly examine the factors of production and their interdependence. 8
   b) How does opportunity costs differ from Variable costs? 12

2. Write Short Notes on:
   a) Risk and Uncertainty
   b) Market demand for insurance
   c) Role of insurer in National Economy
   d) Non - Price competition. 5 each

3. Distinguish between:
   a) Macro-Economics and Micro-Economics
   b) Planned Economy and Market Economy
   c) Dynamic and Static Economics
   d) Determinants of supply and Determinants of Demand 5 each

4. What is income-elasticity and cross-elasticity of demand for insurance? 20

Section- 'B'

5. a) What are the duties of Principal to an agent? 8
   b) Differentiate between Assignment and Nomination. 12

6. “No risk to be assumed unless premium is received in advance.” Analyse this concept in the light of section 64-VB and its relaxations. 20

7. State the powers and duties of a court in respect of an Arbitration Award. 20

8. Define contract. What are the essential ingredients of a valid contract? 20

...... END ......
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)

1. Write short notes on the following: Marks
   a) Market research 5 each
   b) Positioning
   c) Consumerism
   d) Systems approach

2. a) Explain the extent to which the following can improve quality of
    service. Give examples from any business
    i) Leadership
    ii) Automation
   b) Discuss the validity of the statement that activities which are neither
    key nor revenue earning are wasteful and should be eliminated. Give
    examples.

3. Distinguish between, giving examples:
   a) Needs and Wants 5 each
   b) Responsiveness and Sensitivity
   c) Core and Options
   d) Rural and Social Sectors

4. With regard to each of the following:
   (i) State who are their customers and (ii) Suggest steps that they can
   take to improve customer satisfaction using marketing concepts.
   a) Courts of Justice
   b) Police
   c) University
   d) Airport.
5. 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) Departmental store offering discounts for frequent shoppers.
   b) Publisher having a book exhibition.
   c) Lions Club organizing a blood donation camp.
   d) Car dealer arranging for insurance on sales.
   e) Jeweller lighting up his shop during festival.
   f) Hotel training new recruits before assigning them jobs.
   g) Airline designing uniforms for cabin crew.
   h) TV channel conducting a 'Best Singer' competition.
   i) Insurer announcing relaxation after earthquakes.
   j) Railways opening reservation counters at various places in town.

6. What is Direct Marketing? What media are used for Direct Marketing?

7. a) What is Public Relations? Explain briefly.
   b) State the ground on which Public Relations is different from Advertising.

8. a) What are the characteristics of the Rural Market?
   b) What are the characteristics of Rural Customer?

----- END -----
FELLOWSHIP EXAMINATION
MANAGEMENT ACCOUNTING

Time: 3 Hours]  [Total Marks: 100

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 31.3.2005, of Santosh Life Insurance Co. Ltd., prepare its Revenue Account and Balance Sheet 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>17,000</td>
<td></td>
</tr>
<tr>
<td>Advance Payment of Income Tax</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>Agent Balance</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>Paid Claims less Reinsurance:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Death</td>
<td>20,00,000</td>
<td></td>
</tr>
<tr>
<td>By Maturity</td>
<td>18,00,000</td>
<td></td>
</tr>
<tr>
<td>Cash:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with Bank</td>
<td>7,00,000</td>
<td></td>
</tr>
<tr>
<td>at hand</td>
<td>48,000</td>
<td></td>
</tr>
<tr>
<td>Commission</td>
<td>3,00,000</td>
<td></td>
</tr>
<tr>
<td>Consideration for Annuities granted</td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>Claims at the beginning:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Death</td>
<td></td>
<td>5,00,000</td>
</tr>
<tr>
<td>By Maturity</td>
<td></td>
<td>75,000</td>
</tr>
<tr>
<td>Expenses of Management</td>
<td>25,00,000</td>
<td></td>
</tr>
<tr>
<td>House Property (Building)</td>
<td>50,00,000</td>
<td></td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
<td>5,00,000</td>
<td></td>
</tr>
<tr>
<td>Income Tax</td>
<td>1,20,000</td>
<td></td>
</tr>
<tr>
<td>Interest, Dividend &amp; Rent</td>
<td></td>
<td>20,00,000</td>
</tr>
<tr>
<td>Investments</td>
<td>4,25,00,000</td>
<td></td>
</tr>
<tr>
<td>Loan on Policies</td>
<td>22,00,000</td>
<td></td>
</tr>
<tr>
<td>Loan on Mortgages</td>
<td>20,00,000</td>
<td></td>
</tr>
<tr>
<td>Life Insurance Fund on 01.04.2004</td>
<td></td>
<td>2,75,00,000</td>
</tr>
<tr>
<td>Premium 1 year</td>
<td></td>
<td>40,00,000</td>
</tr>
<tr>
<td>Premium Deposit</td>
<td></td>
<td>10,00,000</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 Renewal</td>
<td></td>
<td>1,12,00,000</td>
</tr>
<tr>
<td>Surrenders</td>
<td>25,00,000</td>
<td></td>
</tr>
<tr>
<td>Sundry Debtors</td>
<td>1,00,000</td>
<td></td>
</tr>
<tr>
<td>Sundry Creditors</td>
<td></td>
<td>6,30,000</td>
</tr>
<tr>
<td>Sundry Deposits</td>
<td></td>
<td>3,70,000</td>
</tr>
<tr>
<td>Share Capital</td>
<td></td>
<td>1,50,00,000</td>
</tr>
<tr>
<td>Registration &amp; Other fees</td>
<td></td>
<td>90,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>6,23,85,000</strong></td>
</tr>
</tbody>
</table>

Other adjustments required are:

1) Claims outstanding as at 31.3.2005
   a) By Death Rs. 4,00,000
   b) By Maturity Rs. 1,00,000
2) Depreciation to be Provided
   a) At 5% on Building and
   b) At 15% on Furniture & Fixtures.
3) Surrenders have been wrongly debited for an amount of Rs. 3,00,000/- which should have been treated as loan on Policies.
4) Outstanding commission: Rs. 30,000/-
5) TDS on interest income has been shown as Advance payment of income tax.

QR

1. The following balances appear in New Era General Insurance Co. Ltd. as at 31st March 2000. You are advised to prepare the necessary Revenue Accounts, Profit and Loss Account, Profit and Loss Appropriation Account for the year ending 31st March 2000 and Balance Sheet as at 31.03.2000.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Head of Account</th>
<th>Balance (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Share Capital</td>
<td>40,00,00,000</td>
</tr>
<tr>
<td>2.</td>
<td>General Reserve.</td>
<td>3,85,00,000</td>
</tr>
<tr>
<td>3.</td>
<td>Amount Due to insurers</td>
<td>17,50,000</td>
</tr>
<tr>
<td>4.</td>
<td>Management Expenses</td>
<td>10,25,00,000</td>
</tr>
<tr>
<td>5.</td>
<td>Commission Paid :-</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Fire</td>
<td>5,25,000</td>
</tr>
<tr>
<td>b)</td>
<td>Marine</td>
<td>3,00,000</td>
</tr>
<tr>
<td>c)</td>
<td>Misc.</td>
<td>10,75,000</td>
</tr>
<tr>
<td>6.</td>
<td>Claims Paid :-</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Fire</td>
<td>6,50,00,000</td>
</tr>
<tr>
<td>b)</td>
<td>Marine</td>
<td>1,00,00,000</td>
</tr>
<tr>
<td>c)</td>
<td>Misc.</td>
<td>14,25,00,000</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Head of Account</td>
<td>Balance (Rs.)</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>7.</td>
<td>Claims Outstanding 01.04.1999 :-</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Fire</td>
<td>2,00,00,000</td>
</tr>
<tr>
<td>b)</td>
<td>Marine</td>
<td>20,00,000</td>
</tr>
<tr>
<td>c)</td>
<td>Misc.</td>
<td>4,80,00,000</td>
</tr>
<tr>
<td>8.</td>
<td>Amount due from other insurers</td>
<td>70,00,000</td>
</tr>
<tr>
<td>9.</td>
<td>Profit &amp; Loss Appropriation A/c (Cr)</td>
<td>8,00,000</td>
</tr>
<tr>
<td>10.</td>
<td>Reserve for unexpired risk (01.04.1999) :-</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Fire</td>
<td>50,00,000</td>
</tr>
<tr>
<td>b)</td>
<td>Marine</td>
<td>1,00,00,000</td>
</tr>
<tr>
<td>c)</td>
<td>Misc.</td>
<td>48,00,000</td>
</tr>
<tr>
<td>11.</td>
<td>Interest, Dividend, Rent etc.</td>
<td>12,00,00,000</td>
</tr>
<tr>
<td>12.</td>
<td>Buildings</td>
<td>75,00,000</td>
</tr>
<tr>
<td>13.</td>
<td>Computers, Furniture &amp; fixtures</td>
<td>25,00,000</td>
</tr>
<tr>
<td>14.</td>
<td>Cash at bank and on hand</td>
<td>44,50,000</td>
</tr>
<tr>
<td>15.</td>
<td>Investments</td>
<td>91,00,00,000</td>
</tr>
<tr>
<td>16.</td>
<td>Net Premium :-</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Fire</td>
<td>18,00,00,000</td>
</tr>
<tr>
<td>b)</td>
<td>Marine</td>
<td>3,00,00,000</td>
</tr>
<tr>
<td>c)</td>
<td>Misc.</td>
<td>50,00,00,000</td>
</tr>
<tr>
<td>17.</td>
<td>Agents Balances (Dr)</td>
<td>50,00,000</td>
</tr>
<tr>
<td>18.</td>
<td>Sundry Debtors</td>
<td>50,00,000</td>
</tr>
<tr>
<td>19.</td>
<td>Sundry Creditor</td>
<td>75,00,000</td>
</tr>
<tr>
<td>20.</td>
<td>Outstanding Premium</td>
<td>10,00,00,000</td>
</tr>
<tr>
<td>21.</td>
<td>Interest accrued but not due</td>
<td>50,00,000</td>
</tr>
</tbody>
</table>

The following further information may also be noted.

a) Claims outstanding (31.03.2000) :-
   a) Fire 5,00,00,000
   b) Marine 3,00,00,000
   c) Misc. 12,00,00,000

b) Management Expenses include survey fees of Rs. 1,00,000/- and Legal fees of Rs. 5,00,000/- incurred towards fire claims.
c) Create a provision for income tax @40% (incl. Surcharge)
d) Provide depreciation on Buildings at 5%.
e) Market Value of Investments as on 31.03.2000 is Rs. 120,00,00,000/-.f) Reserve for unexpired risk may be created at 50% of the net premium for fire and misc. business and at 100% for marine.
g) Management expenses are to be apportioned on the basis of net premium among the 3 departments.
2. a) What are the reasons for differences in the profits shown by Financial Accounts and by Cost Accounting System?

b) Mumbai Distributors Ltd. maintains both financial accounts and cost accounts. Their profit as per cost books was Rs. 1,24,250/- while the audited final accounts showed a net profit of Rs. 1,10,000/- . Please prepare a reconciliation Statement and explain to the Board that there is nothing wrong with either of the accounts.

Mumbai Distributors Ltd.

<table>
<thead>
<tr>
<th>Profit and Loss Account for the year ended 31st March</th>
<th>Rs.</th>
<th>Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Stock</td>
<td>1,85,000</td>
<td>By Sales</td>
</tr>
<tr>
<td>Purchases</td>
<td>4,25,000</td>
<td></td>
</tr>
<tr>
<td>Closing Stock</td>
<td>40,000</td>
<td></td>
</tr>
<tr>
<td>Gross Profit Transferred</td>
<td>1,75,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8,25,000</td>
<td>8,25,000</td>
</tr>
<tr>
<td>Depreciation on Computers</td>
<td>25,000</td>
<td>Gross Profit</td>
</tr>
<tr>
<td>Commission on sales</td>
<td>40,000</td>
<td></td>
</tr>
<tr>
<td>Net Profit</td>
<td>1,10,000</td>
<td>1,75,000</td>
</tr>
</tbody>
</table>

The costing records showed that:

a) the value of closing stock was Rs. 48,000/-

b) Depreciation was Rs. 27,250/- and

c) Commission on Sales was Rs. 31,500/-

3. a) Explain the term ratio. Discuss advantages and limitations of ratio analysis.

b) The following are the ratio of ABC Ltd.

i) Total debts to net worth : 0.50 to 1

ii) Turnover of total assets : 2 times

iii) Gross Profit : 30%

iv) Average Collection Period (Based on 360 days a year) – 40 days.

v) Inventory Turn over (Based on Cost of Goods Sold and Closing Stock) : 3 times

vi) Acid/Quick Test Ratio : 0.75:1

vii) Share Capital : Rs. 2,50,000

viii) Retained Earnings : Rs. 3,50,000

ix) Outside liabilities in the Company is notes & accounts payable only.

Draw up the Balance Sheet of ABC Ltd.
4. a) Discuss briefly about the concept of Standard Costing.
b) What are the prerequisites of Effective Budgeting?
c) Enumerate briefly various errors which may go undetected even both sides of Trial Balance agree.

5. a) Following is the Balance sheets of ABC Ltd. for Two years. Figures are given in rupees in lakhs.

**Balance Sheet as at 31st March.**

<table>
<thead>
<tr>
<th>Current Year</th>
<th>Previous Year</th>
<th>Current Year</th>
<th>Previous Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Liabilities</td>
<td>85</td>
<td>40</td>
<td>Cash</td>
</tr>
<tr>
<td>Long term debt</td>
<td>85</td>
<td>Net Receivables</td>
<td>65</td>
</tr>
<tr>
<td>Stock holders' equity</td>
<td>200</td>
<td>120</td>
<td>Inventories</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(After depreciation)</td>
<td>Plant &amp; Machinery</td>
</tr>
</tbody>
</table>

| 370 | 160 |

Net income before taxes was Rs. 65 lakhs and taxes paid was Rs. 20 lakhs. Cash dividend paid Rs. 5 lakhs.
Prepare a Statement showing the cash flow of ABC Ltd. as per AS - 3.

b) What are the guidelines of IRDA with regard to preparation of cash flow statements.

6. Write short notes on the following:
   i) Margin of Safety
   ii) ABC Analysis
   iii) Internal Audit and Statutory Audit

7. Structural Engineers have a machine which has been in use for 6 years. There is a proposal to replace it with a new improved model. Based on the following data you are required to advise them whether they should go for the new machine or not. Give justification for your suggestion.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Old Machine</th>
<th>New Machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Purchase Price</td>
<td>60,000</td>
<td>1,20,000</td>
</tr>
<tr>
<td>b) Expenditure (p.a.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Power Consumption</td>
<td>7,000</td>
<td>10,000</td>
</tr>
<tr>
<td>ii) Consumable Stores</td>
<td>4,000</td>
<td>6,000</td>
</tr>
<tr>
<td>iii) Repairs and Maintenance</td>
<td>5,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Particulars</td>
<td>Old Machine</td>
<td>New Machine</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>c) Labour cost per hour</td>
<td>2</td>
<td>2.25</td>
</tr>
<tr>
<td>d) Units of output per hour</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>e) Machine running hours p.a.</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>f) Material cost per unit</td>
<td>0.40</td>
<td>0.40</td>
</tr>
<tr>
<td>g) Selling price per unit</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>h) Estimated Life</td>
<td>10 years</td>
<td>10 years</td>
</tr>
</tbody>
</table>

8. a) Discuss briefly about the concept of Marginal Costing.

b) The following details are available from M/s Rahul & Co. for a 14 Calendar Year:

i) Present Production and sales : 10,000 units

ii) Selling price per unit : Rs. 20

iii) Direct Material : Rs. 6.00 per unit

iv) Direct Labour : Rs. 4.00 per unit

v) Variable Overhead : 50% of direct labour Cost.

vi) Fixed Cost : Rs. 60,000

(A) Calculate P/V Ratio, Break Even Point and Margin of Safety.

(B) Calculate the effect on P/V Ratio, Break Even Point and Margin of Safety in each of the following cases:

i) 10% increase in selling price.

ii) 10% increase in variable cost.

iii) 10% decrease in fixed cost.

iv) 10% decrease in sales volume.

-------The End-------
NOVEMBER, 2007

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 are the essentials of a formal bureaucratic organization? 
   Marks 8
   b) Explain various approaches to human resources management. 
   Marks 12

2. a) It is said that many theories in HRM are neither exact nor conclusive in their applications. Justify the statement. 
   Marks 10 each
   b) What steps can an organization take to retain its competent employees from getting tempted with high salary increases and leaving? 

3. a) State the assumptions of Theory X and Theory Y. 
   Marks 8
   b) What, in your opinion, is the Theory with which managers in your organization operate? Give illustrations to justify your statement. 
   Marks 12

4. Justify the correctness of the following statements.
   a) The meanings of words are not in the words they are in us. 
   Marks 5 each
   b) Every job should hold out some sort of desirable future and not just in terms of promotion, because everyone cannot be promoted.
   c) It is not enough to do your duty; you must do whatever is necessary to ensure the success of the company.
   d) Every businessman wants to know how he can increase productivity. The key to productivity is to control worker's time.

5. a) In what ways are organizations responsible for Quality of Life? 
   Marks 10 each
   b) Do you think that group decisions are always better than individual decisions? Give reasons.

6. Write short notes on :-
   a) Intellectual Development 
   Marks 5 each
   b) Job Analysis
   c) Personnel Research
   d) Counselling
7. a) Conflicts are inevitable in ongoing business. Discuss five basic issues of conflict.

b) The course of conflict may be productive or destructive. The four issues which are important to redress the balance in relationship may be explained.

8. Motivation is a process of recognizing the sequence of needs, wants, tension, action and satisfaction. Give illustrations to explain the concept.
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. "The Industrial Disputes Act is designed to settle industrial disputes." Explain this statement with particular reference to the role of Labour Courts. 20

2. a) Define Retrenchment. Explain in brief the procedure for retrenchment. 
b) How does ‘Lay Off’ differs from ‘Lock Out’? 12

3. What are ‘Unfair Labour Practices’? What provisions are made in the I.D. Act to prevent such practices? 20

4. Write Short Notes: 
a) National Tribunal
b) Industrial Revolution
c) Agreement in restrained of Trade
d) Forfeiture of Gratuity 5 each

5. a) Explain in brief the liability of an employer under Workmen’s Compensation Act. 
b) Discuss in detail the Notional extention of time and place of employment for payment of Compensation by the Employer. 10 each

6. a) Is the Registered trade union or its officer immune from civil or criminal liability? Supplement your answer by quoting relevant sections of Trade Unions Act 1926. 
b) What is the liability of an office bearer of a Union as an employee? Discuss the rationale of the decision in the case of Jaichand Bansal versus Industrial Tribunal. 10 each
7. a) Define strike and Lock-out as stated in Industrial Disputes Act.
   b) What are the statutory provisions regarding prohibition of strikes in Industrial Establishment. Quote important legal pronouncements in this respect.

8. Explain in details duties of the conciliation Board formed under sections of Industrial Disputes Act.

------- END -------
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. Operating system manages certain operations(functions)-what are they?  
   Marks 20

2. a) What is Formula that is used in Excel?
   b) Narrate briefly the steps to total a column of numbers in Excel worksheet.
   c) Also state for what purposes the below mentioned Formulas/Functions are used:
      i) Sum
      ii) Average
      iii) Count
      iv) Counta
      v) PMT and
      vi) IRR
   2 each

3. a) Distinguish between Data and information.
   b) List the Data Types in DBMS environment.
   c) The Architecture of DBMS is divided into three levels. What are they?
   8 2 10

4. a) Brief note on:
   i) IP address
   ii) Web address
   b) Write about the various methods by which Internet Connections are possible.
   2 2

5. a) What is a Trojan Horse?
   b) How can you tell whether your computer is infected?
   c) Mention the effects of Virus
   d) What functions are expected to be performed by Anti-Virus programme?
   5 each
6. Write Short Notes on the followings:-
   a) Firewall
   b) FTP (File Transfer Protocol)
   c) List of vendors supplying sets for motherboard
   d) Cache Memory

7. a) What are the special features of Pentium 4 ?
    b) What are present day's media for storage of data ?
    c) Discuss checklist relating to Printer problems.

8. Explain the Windows 2000 system commands and also its functions /
   functions of those commands, which are not found in MS-DOS.

       END
NOVEMBER, 2007

FELLOWSHIP EXAMINATION
ASSET MANAGEMENT

Time: 3 Hours] [Total Marks : 100

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

1. "Government Securities are a unique and important Financial instruments in the financial markets of any Country." Explain why it is so giving main characteristics of Government Securities.

2. a) Briefly describe the charts used by technical analysts.
   b) Charting can sometimes be deceptive – discuss.

3. "The DOW theory is the oldest and the most famous technical theory for analyzing the behaviour of stock market" Explain fully its significance.

4. Enumerate the different types of risk with reference to a financial instrument.

5. Write short notes on any four of the following:
   a) Spot Rates.
   b) Close Ended Schemes
   c) Risk-Return Trade off
   d) P/E Ratio
   e) Dividend Yield.

6. What are the types of Mutual Funds in India? Briefly Describe them.

7. What are the key economic variables that an investor must monitor in order to carry out his fundamental analysis in the capital market?

8. What is Markowitz's technique? How is it useful in deciding a portfolio mix?

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