FL-81

FELLOWSHIP EXAMINATION

MATHEMATICAL BASIS OF LIFE ASSURANCE

Time: 3 Hours]   [Total Marks : 100

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

Marks

1. i) Find the time in days for Rs. 5,000 to accumulate to Rs. 6,000 at   2 each
   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 $d = iv$ by general reasoning where 'd' is   2
   the effective annual rate of discount and 'i' is the effective annual
   rate of interest.

   b) Consider two investments given below :   4
   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 :- $V_{@ \; 3.5\%}^{\frac{1}{2}} = 0.9829$

   iii) An investor 'A' invests Rs. 50,000 for 8 years at a simple rate of 6% per   8
   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 :- $V_{@ \; 4\%}^{8} = 0.7307$; $V_{@ \; 8\%}^{4} = 0.7350$; $1.02^{32} = 1.8845$

2. a) In a stationary community of 5,70,000, the number of deaths is 12000   10
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.   5
   ii) In the above premium is altered if the deferred annuity after attaining   5
   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 :- $\quad D_{24} = 244104 \qquad N_{24} = 3935573$

   $\qquad\qquad\qquad\qquad D_{60} = 24604 \qquad\; N_{60} = 249057$

   $\qquad\qquad\qquad\qquad N_{70} = 75664 \qquad\;\; a_{\overline{10}|} = 7.3607$

3. i) In a Special mortality table with a select period of one year the following   5
relationship holds for all ages :

   $$0.5\, q_{[x]} = (0.26) \times q_x$$

   $$0.5\, q_{[x]+0.5} = (0.40) \times q_x$$

   Express $p_{[x]}$ in terms of p_x

   ii) In a special mortality table with a select period of 3 years,   7

   Given that : $\quad q_{[35]} = 0.012 \qquad\qquad 2|\, q_{[35]} = 0.022$

   $\qquad\qquad 2\, p_{[35]} = 0.85 \qquad\qquad 2|3\, q_{[35]+1} = 0.079$

   Find the value of $\qquad 3\, p_{38}$

   iii) Under the assumption that the deaths are uniformly distributed over each
   year of age, it is given that : $\qquad t\, q_x = t \times q_x$

   Show that : a) $\quad l_{x+t} = l_x - t\, d_x$ 3

   $\qquad\qquad$ b) $\quad l_{x+t} = (1-t) \times l_{x+t} + t \times l_{x+1}$ 2

   For $0 \leqslant t \leqslant 1$ and age $x = 0, 1, 2 \ldots\ldots$

iv) **Given that:** $e_{50} = 8.322$ $e_{51} = 8.134$ $l_{51} = 56385$ 3

      Calculate : l_{50}

4. a) Ajay has invested some money and will receive returns of Rs. 200 for 4   6
        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.

        $(1 + i)^4 = 1.31080$ $(1 + i)^5 = 1.40255$ $(1 + i)^9 = 1.8346$

        $a_{\overline{4}|} = 3.3872$ $a_{\overline{5}|} = 4.1002$ $a_{\overline{9}|} = 6.5152$ @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   4
         of 10% p.a.
      ii) What will be the accumulated value if the rate of interest is 10% p.a.   4
         convertible half - yearly.

       @ 10% $s_{\overline{10}|} = 15.9374$ $i^{(12)} = .095690$

       @ 5% $s_{\overline{20}|} = 33.0660$ $i^{(6)} = .048989$

   c) A loan of Rs. 75,000 is to be repaid with interest at 8% p.a. by means of   6
        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% :- $a_{\overline{20}|} = 9.8181$ $v^{11} = 0.4288$ $a_{\overline{10}|} = 6.7101$

       At the rate of 7% :- $a_{\overline{3}|} = 2.6243$

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

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

     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 :

$P \, \ddot{a}_{x:\overline{n}|} = S \, A_{x:\overline{n}|}$ 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   1
b) Initial expenses of 5% of sum assured and renewal expenses of 3%   2
   of each premium including the first premium.
c) Initial expenses of 30% of first premium plus renewal expenses of   3
   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   9
     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.

Basis : Mortality LIC 70-73 ultimate. Interest 6% p.a. Ignore expenses.

N_{35} = 1906522.39 M_{35} = 18747.99 D_{35} = 126664.23

N_{55} = 403807.17 M_{60} = 10506.87 D_{60} = 24604.43

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

   ii) Demonstrate the equality of prospective and retrospective gross premium   8
       policy values for a single premium, unit sum assured whole life policy.
       Ignore expenses.

   iii) Explain by general reasoning the relationship :   4

        $(_tV_x + P_x)(1+i) = q_{x+t} + p_{x+t} \, (_{t+1}V_x)$

   iv) Calculate $_{t+1}V_x$, given the following :   2

       P_x = 0.032

       $_tV_x$ = 0.592

       i = 0.06

       q_{x+t} = 0.032

7. a) What is the benefit that is represented by $a_{x:\overline{n}|} - a_{x:\overline{n-1}|}$?   5

b) Calculate the net annual premium and the office annual premium for a 30   12
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 par Rs. 1000 sum assured including
   the first.

$$D_{30} = 170763 \qquad N_{30} = 2666995 \qquad M_{30} = 19802$$

$$D_{60} = 24604 \qquad N_{60} = 249057 \qquad M_{60} = 10507$$

c) Give that $A_x = .2790$ and $P_x = 0.0167$ 3

Find a_x and rate of interest.

8. a) Prove that :

   i)   3
$$\frac{a_x \cdot a_{x+1} \cdot a_{x+2} \cdots\cdots\cdots a_{x+n}}{\ddot{a}_{x+1} \cdot \ddot{a}_{x+2} \cdots\cdots\cdots \ddot{a}_{x+n}} = n/a_x$$

   ii) Establish algebraically the relationship :   2

$$\ddot{a}_{x:\overline{n}|} - a_{x:\overline{n}|} = 1 - A_{x:\overline{n}|}^{1}$$

b) Calculate office annual premium limited to 15 years under a With profit   15
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 :- $R_{40} = 424773.69$ $R_{65} = 84353.11$ $D_{65} = 16251.89$
        $N_{40} = 1343014.73$ $N_{65} = 143668.44$ $M_{65} = 8119.74$
        $M_{40} = 17625.63$ $N_{55} = 403807.17$ $D_{40} = 93645.23$

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FL-82

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 o and x is given at the end)**

Marks

1. Following data gives quality ratings for ten branches of an insurance company   20
   by five industry experts. Analyse data and discuss whether there is any significant
   difference between the branches or between the experts.

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

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   10 each
   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 U E_2 U 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 8

  b) Find the equation of regression line of y on x and estimate the value of   6
y when $x = 3$

  c) Find the equation of regression line of x on y and estimate the value of   6
x when $y = 5$

Variable $x \rightarrow$	2	3	4	5	6	7	7	8	8	9	10	11
Variable $y \rightarrow$	6	6	5	8	5	8	7	9	11	8	8	10

4.   a) A firm selected a random sample of 100 items from its production line   12
and obtained following data :-

Class interval	Frequency
130 - 134	3
135 - 139	12
140 - 144	21
145 - 149	28
150 - 154	19
155 - 159	12
160 - 164	5

Compute the following :-
i) Arithmatic mean
ii) Standard deviation
iii) α_3 (Measure of skewness)

  b) The mean marks obtained by 300 students in an examination are 45 .   8
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   12
periods are given in following table .

Commodity	Base year 1990		Current year 1995	
	Price	Quantity	Price	Quantity
A	10	2	15	1
B	15	3	10	3
C	20	4	15	4

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   8
2004 = 100 . By what percent did the price rise between 2000 & 2005 ?

Year →	2000	2001	2002	2003	2004	2005
Old price Index 1995 = 100	141.5	163.7	158.2	156.8	157.1	-
New price Index 2004 = 100	-	-	-	-	100	102.30

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

Quarter / Year	Quarterly Expenses of Electricity				Total
	I	II	III	IV	
2003	10	13	14	12	49
2004	12	14	15	13	54
2005	13	15	18	14	60
2006	15	19	21	18	73
2007	15	22	23	20	80
Total	65	83	91	77	316

a) Derive the equation of trend line   7
b) Find the trend value of each quarter   5
c) The quarterly seasonal index estimated from past experience is given below: 8

Quarter	I	II	III	IV
Seasonal Index	89.7%	104.8%	112.7%	92.8%

Isolate random variations.

10 each

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 varite 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 :

   56, 49, 26, 59, 38, 42, 55, 53 33, 28, 31, 42, 27, 46, 29 & 46.

   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 ?   10

   b) Write short notes on F - distribution .   7

   c) How sampling bias occurs ? Give one example.   3

TABLE SHOWING AREAS OF THE STANDARD NORMAL CURVE FOR VALUE OF 'X' BETWEEN '0' AND 'X'			
X	**Area**	**X**	**Area**
0.05	0.0199		
0.10	0.0398	1.1	0.3643
0.20	0.0793	1.2	0.3849
0.30	0.1179	1.3	0.4032
0.40	0.1554	1.4	0.4192
0.50	0.1915	1.5	0.4332
0.60	0.2257	1.6	0.4452
		1.645	0.4500
0.70	0.2580	1.7	0.4554
0.80	0.2881	1.8	0.4641
		1.9	0.4713
0.90	0.3159	1.96	0.4750
		2.00	0.4772
1.00	0.3413	2.58	0.4951
		3.0	0.4987

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FL-83

FELLOWSHIP EXAMINATION
GROUP INSURANCE & RETIREMENT BENEFIT
SCHEMES

Time: 3 Hours]   [Total Marks : 100

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

1. Write short notes on **any four** of the following:-   5 each
    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.

2. a) What is primary object of Group Insurance Scheme? Distinguish between   10 each
        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.

3. a) State the main methods of arranging pension schemes? Briefly bring out   10
        the advantages and disadvantages of each scheme?

b) State Income Tax position indicating relevant sections of the Income-Tax   2 each
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   10
   i)   Group underwriting &
   ii)   Experience Rating are 2 special features, explain these concepts.

    b)   'Gaurav' Investments Pvt. Ltd., a company employing 550 employees   10
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   10
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 –   10
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.
   v)   Procedure for obtaining Income Tax Approval.

vi)   Data required.

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

6.   Describe the Applicability of Employees' Provident Fund and Miscellaneous   20
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" 10 each

     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 10 each
Role in this regard.

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

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FELLOWSHIP EXAMINATION
REINSURANCE

Time: 3 Hours]   [Total Marks : 100

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

		Marks
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   15
from following data :-

	Rs.
Premium ceded during year	30,00,000
Incoming Premium Reserve	10,00,000
Outgoing Premium Reserve	12,00,000
Losses paid during year	12,00,000
Outgoing Loss Reserve	8,00,000
Incoming Loss Reserve	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%

b) Prepare a Minimum and Deposit Premium Account rendered   5
through Broker on Fire Excess Loss Cover - 2010 which pays
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.

5. a) What is the need for an efficient statistical system?   10 each

    b) State the guidelines for evolving of good statistical system.

6. Distinguish between Facultative and Treaty forms of Reinsurances.   20

7. a) What is sovereign rating?   2

    b) Is sovereign rating subordinate to individual company's rating? State reasons.   4

    c) Elaborate the key areas that a credit rating agency will look into.   14

8. What are the re-insurance aspects of Fire and Marine Classes of direct insurance business ?   20

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FELLOWSHIP EXAMINATION
RISK MANAGEMENT

Time: 3 Hours]   [Total Marks : 100

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

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

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FG-87

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'	Marks

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 :-   5 each
   a) Contractual capacity of Married women.
   b) Wager
   c) Modes of discharge of contract.
   d) Accord and satisfaction

3. a) Enumerate the circumstances under which an agency can be created.   10 each
   b) Discuss the power of a court in respect of an Arbitration award.

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

6. a) What is Perfect competition?   10 each
   b) Compare Monopoly with Perfect Competition.

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   20
other factors which are collectively known as conditions of supply. What are
the determinants of supply other than price.

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FC-88

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)

			Marks

1. a) There is a view that policy conditions are not easily understood by   **15**
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   **5**
printed in policy documents?

2. Write short notes (about 50 words) on the following :   **5 each**
     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   **15**
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   **5**
would be Market development. Justify the answer.

4. Distinguish between :   **5 each**
     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   10 each
   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   2 each
   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   10
   scope for selling insurance may have improved.

   b) A company setting up a factory in a remote location does the following.   2 each
   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,   2 each
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   10
what extent would that apply to insurance marketing?

------ **END** ------

FC-89

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.

		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.		20

(Rs. in Lakhs)

Particulars	Debit Rs.	Credit Rs.
Annutites	5	
Advance Payment of Income Tax	1	
Agent Balance	2	
Building Dep. Account		3
Claims less Reinsurance Paid :		
By Death	20	
By Maturity	14	
Cash with Banks on Current A/cs	5	
Commission	3	
Claims outstanding at the beginning of the year :-		
By Death		8
By Maturity		6
Contingency Reserve		2
Expenses of Management	25	
Furniture & Office Equipments	5	
House Property	50	
Income Tax	5	
Investments	20	
Interest, Dividend & Rent		15
Loan on Mortgages	10	
Loan on Policies	10	
Life Assurance Fund at the beginning of the year		70
Printed Stationery	5	

(Rs. in Lakhs)

Particulars	Debit Rs.	Credit Rs.
Sundry Debtors	10	
Sundry Deposits	12	
Share Capital		10
Taxation Reserve		10
Premium less Re-insurance		78
	202	202

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 20
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)

Particulars	Debit Rs.	Credit Rs.
Share Capital		10
Balance of funds at the begining of the year :		
Fire Insurance		10
Marine Insurance		5
Miscellaneous Insurance		10
General Reserve		10
Claims Paid :-		
Fire	68	
Marine	32	
Misc.	20	

(Rs. in Lakhs)

Particulars	Debit Rs.	Credit Rs.
Premium Less Insurance Ceded:-		
Fire		200
Marine		50
Misc.		125
Commission Paid :-		
Fire	20	
Marine	15	
Misc.	15	
Expenses of Management :		
Fire	30	
Marine	18	
Misc.	12	
Claims Outstanding (as on 01.04.2008) :-		
Fire		12
Marine		18
Misc.		10
Audit fees	1	
Investments	50	
Interest outstanding	2	
Amount due from Insurers	50	
Buildings	50	
Cash at Bank	77	
	460	**460**

Other information :-
<div style="text-align:right"><u>(Rs. in Lakhs)</u></div>

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.   6

    b) i) ABC Ltd. produces electronic components with a selling price per   14
            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 :

Capacity	60%	100%
	Rs.	**Rs.**
Budgeted production (**units**)	600	1000
Wages	1,200	2,000
Consumable stores	900	1,500
Maintenance	1,100	1,500
Power and Fuel	1,600	2,000
Depreciation	4,000	4,000
Insurance	1,000	1,000

    You are required to :

    i) indicate which of the items are fixed, variable and semi-variable .   5

    ii) prepare a budget for 80% Capacity.   15

4. a) Even if Trial Balance totals agree, some errors may still remain undetected.   6
        - Discuss

    b) Z Ltd. uses standard costing system in manufacturing of its product 'P'.   14
        The standard cost per unit of 'P' is as follows :   **Rs.**

Direct Material	-	3 kgs	@ Rs. 8 per kg.	24
Direct Labour	-	1 hour	@ Rs. 5 per hour	5
Variable Overhead	-	1 hour	@ Rs. 4 per hour	4
				33

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

Direct Material acquired -	@ Rs. 7 per kg.	28000 kgs.
Material consumed -		25200 kgs.
Direct labour - ? hours @ Rs. ? per hour		Rs. 39,840
Variable overhead incurred		Rs. 32,800

        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   20
    undertake.

    The Finance Director thinks that the project with higher NPV should be chosen
    where as 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 :

    (Rs. '000)

Year	0	1	2	3	4	5
Cash Flows						
Project A	(200)	35	80	90	75	20
Project B	(200)	218	10	10	4	3

    Required :

    a) Calculate the N P V and I R R 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)

Year	0	1	2	3	4	5
Discount Factors (10%)	1	0.91	0.83	0.75	0.68	0.62
(20%)	1	0.83	0.69	0.58	0.48	0.41

6. You are given the following data for the year ended 31st March, 2008 of XYZ Ltd.   20

	(Rs.)	(%)
Varible Cost	6,00,000	60
Fixed Cost	3,00,000	30
Net Profit	1,00,000	10
Total :-	**10,00,000**	**100**

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

7. Write short notes on the following :-   4 each
   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   5
   ii) Merits and limitations of budgeting.   5
   b) Mention the different types of budgets based on different basis of classification of budgets .   10

------THE END------

FC-90

FELLOWSHIP EXAMINATION

HUMAN RESOURCES MANAGEMENT

Time: 3 Hours]   [Total Marks : 100

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

			Marks
1.	a)	What should be the essential characteristics of an objective?	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) 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.	5 each
		i) Transferring an employee to a distant office, because he is found to be lethargic.	
		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?   5 each
   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   8
      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 12
      company? Would more than one method be necessary?

7. a) It is claimed that an effective manager will not be required to know the 5
      rules of discipline. Do you agree? Justify your answer.
   b) How can stress be useful? Give examples from office situations and   10
      elsewhere.
   c) Is stress within one's control or it is forced on one by others?   5

8. a) What do you understand by the word 'climate' in an office?   5
   b) Who is responsible for the climate in department in a Branch Office?   5
      Explain how.
   c) Both Accommodation and Compromise strategies amount to surrender   10
      in a conflict situation. Discuss how valid is this statement.

------THE END------

FC-97

FELLOWSHIP EXAMINATION
LEGAL ASPECTS OF INDUSTRIAL RELATIONS

Time: 3 Hours]   [Total Marks : 100

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

Marks

1. Define 'State.' Give a brief resume of the fundamental rights enshrined under the constitution. Is social justice different from Natural Justice?   20

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.   12

    b) What was the ratio laid down by the supreme court in the case of Bangalore Water Works?   8

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.   20

4. a) Define Industry as stated in Section 2J of I.D. Act.   6
    b) Explain the SC Decision in Bangalore Water Works case. Briefly mention and explain the cases where the SC overruled HC Decisions.   14

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

6. a) Define Award. When does an award commence? Enumerate the persons   12
   on whom settlement and awards are binding.

   b) What were the issues decided by the supreme court in the case of A.V.   8
   Nachne V/s Union of India?

7. a) Define 'Wages' under the Payment of Wages Act.   10 each

   b) What are the important provisions of Shops and Establishment Acts?

8. Define and describe in detail the provisions relating to unfair labour practice.   20

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

FC-98

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.)

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

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

FC-99

FELLOWSHIP EXAMINATION
ASSET MANAGEMENT

Time: 3 Hours]　　　　　　　　　　　　　　　　　[Total Marks : 100

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

		Marks

1. Elaborate the key economic Variables that an investor must monitor in order to carry out his fundamental analysis. **20**

2.　a)　Explain the need for portfolio analysis with reference to a mutual fund. **10 each**
　　b)　What are the problems in managing a portfolio?

3.　a)　What are the two types of risk of a security? **5**
　　b)　Capital Asset Pricing Model measures the relationship between the risk of a security and its expected returns – Discuss. **15**

4.　a)　What are the problems in portfolio Management ? **15**
　　b)　Define stock splits. **5**

5.　Define the following : **4 each**
　　a)　Grooming and switches in the gilt market.
　　b)　Dividend Yield
　　c)　Risk – Return Trade off
　　d)　Currency Risk
　　e)　Preferred stock

6.　Describe the major functions of the Reserve Bank of India. **20**

7.　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. **20**

8. Write short notes : (**Any four**)   5 each
    a) Asset Management
    b) Solvency Margin
    c) Moving Averages
    d) Government Securities
    e) Risk Penalty

------ **END** ------