

**SUGGESTED ANSWERS - NOV 2005**  
**PAPER 2 - TECHNICAL ASPECTS OF INSURANCE**

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1. (a) From the answers to the following questions, indicate the one that is accurate or nearing accuracy:

(i) Which one of the following is a consequential loss in the context of fire insurance?

**Ans: (d) Loss of profits on account of fire**

(ii) What is a floating policy?

**Ans: (b) a policy that covers stocks located in various godowns under a single policy.**

(iii) In marine insurance, loss due to rats and vermin is

**Ans: (c) a statutory exclusion**

(iv) Motor insurance in India is covered by

**Ans: (b) tariff rating**

(v) Subrogation and contribution are the corollaries of

**Ans: (b) Principle of indemnity**

(vi) Mid-term insurance in sum assured means

**Ans: (c) Increase in sum assured during the currency of the policy**

(vii) Workmen's compensation (employer's liability) insurance covers

**Ans: (d) employer's liability under the Workmen's Compensation Act, 1928.**

(viii) Term assurance provides

**Ans: (a) death benefits, if the insured dies**

(ix) Level premium under life insurance means

**Ans: (c) the amount of premium remains the same throughout the term of the policy**

(x) Mortality table is used for pricing

**Ans: (a) individual life insurance policies**

(b) The difference in the nature and contents of life insurance and general insurance necessitated the establishment of the Tariff Advisory Committee to deal with the underwriting of general insurance business and not of life insurance business.

What are these differences? Elaborate.

**Ans: Insurance business is divided into Life business and non-life business. Non-life insurance is called general insurance in the Insurance Act of 1938. It is further classified as Fire, Marine and Miscellaneous business.**

**Following are the differences between Life and General Insurances.**

**Assurance is a term connected with life business only. Because the life insurer assures the assured that he would pay back the premium received with additions if the assured survives the period agreed upon or in the event of earlier death, the insurer assures the assured to pay the stated sum in the policy to assured's heirs or nominees. Life insurance is a contract to pay an agreed sum of money on the happening of stated contingency i.e. survival or death of the assured.**

On the contrary insurance is a term related to general insurance and is denoting the promise to pay only if the stated risk occurs and that too the amount of loss-not any other amount. If the contingency does not occur, the premium paid is a loss to the insured and a profit to the insurer. But now-a-days assurance and insurance are treated as synonyms and inter changeables.

Life insurance is a long-term contract- say 5,10, 15,20, 30 years. But general insurance is an annual contract.

The principle of indemnity does not apply to life insurance contract. The sum specified in the policy is payable. Whereas in general insurance only the amount of loss suffered is paid subject to availability of sum insured and not any other amount. The insured is indemnified of his loss in general insurance, but the assured amount is paid in life insurance.

The right to renew/continue the policy rests with the insured in life insurance i.e. during the period of policy the insurance continues automatically year after year when once the installment is paid at the due date and insurer can not refuse to keep the policy alive or to renew it since it is a long term contract and a single continuous contract. But in general insurance the contract is annual and the insurer can refuse to renew it the next year.

In life insurance the installment premium agreed at the beginning of the period continues to hold good till the end of the policy period. No change is made in the middle of the period. Whereas in general insurance the premium can be altered each year at renewal as is deemed fit by the insurer.

The principle of utmost good faith is scrupulously followed in general insurance. If there is any change in the nature of property insured or status of the insured mid term, the same is to be intimated to the insurer and to be approved by them. But good faith is to be exercised only at the beginning in life insurance and any change in the insured's status or health in the middle of the period need not be intimated to the insurer.

The terms and conditions accepted at the outset hold good to the end in life insurance, but not so in general insurance where the terms etc. can be varied from year to year.

From the investment angle, the life funds are more attractive as the insurer holds the fund for a longer period whereas in general insurance

the fund is available on yearly basis. This year the premium may be earned, the next year the party may not renew and there is no fund available to the insurer. So more life insurers have entered India than general insurers.

In life insurance the subject matter is only the life of the insured whereas in general insurance the subject matter maybe life (like P.A.) or property (Fire) or liability (Workmen's Compensation) or interest (Fidelity Guarantee). That is why in general insurance the number of classes or types of policies are numerous and the variety is large. Hence it became necessary for the authorities to have a Tariff Advisory Committee to control and monitor general insurance business.

2. (a) The consequential loss in fire cover is designed to take up where the property damage cover leaves off.

Explain the consequential loss cover in detail and also indicate the other names by which this cover is known.

**Ans:** When a fire breaks out it destroys the machinery building and contents of the insured firm. This damage is covered under the 'material damage' policy of insurance. The loss is not confined to capital loss i.e. loss of property, it extends beyond the property. The manufacturing process ceases in the factory, resulting in the loss of earning by loss of production and sale of the products. The profit is lost. So besides the material damage policy, the owner takes another policy to protect him from the consequential losses following the material damage. The consequential loss policy therefore follows the material damage policy. Without the latter, there cannot be the former.

What are the losses one incurs consequent on a fire besides loss of property? Mainly it is the profit one makes is lost. This profit can be calculated from the financial records of the insured. Whether the operation is on or not, the wages of permanent employees are to be paid. The rent for the building and the taxes has to be met even though there is no production. Increased cost of purchase of raw materials, employing additional labour and renting out alternative accommodation or machinery for running the factory go to reduce the profit. These expenses have to be met until restoration of original business and they will affect the profit. The consequential loss policy therefore compensates the manufacturing concern for lost income contributing to profit that would have been earned had the fire not

occurred. The period in which the business is brought back after the fire to normal working is called the indemnity period. This is the period in which the earning of the concern is affected. This period may be 3 months to 3 years and the insured has to pay for this period as the income during this period is reduced or lost. This period is different from the period of insurance, which is one year, whereas the indemnity period may be 15 months or 25 months extending much beyond the expiry of the insurance policy.

The consequential loss (C.L.) policy pays loss of gross profit due to

- (a) reduction in turnover and
- (b) increase in cost of working during indemnity period.

Therefore the sum insured would be the gross profit during the indemnity period. If indemnity period is 12 months the sum insured would be the gross profit of 12 months. The claim amount payable in other words would be

- (a) in respect of turnover is

Standard turnover - turnover in indemnity period X rate of gross profit

- (b) in respect of increase in cost of working is

the increased cost subject to reduction in turnover avoided X rate of gross profit.

The standing charges saved or reduced because of damage must be deducted from the amount payable.

Turnover has three components:

- (1) Variable charges - like expenses on raw materials. This varies in proportion to volume of production.
- (2) Standing charges - Fixed expenses not changing with volume of production like wages of permanent staff, tax etc.
- (3) Net profit - turnover minus variable and standing charges

Gross profit - standing charges + net profit.

**This insurance is tariffed and is known as either**

- (a) Loss of profits Ins. (Fire) LOP or**
- (b) Consequential Loss Ins. (fire) - CL or**
- (c) Business Interruption Ins.**

(b) What are the legal aspects of third party motor insurance? Are there any exemptions to the concept of compulsory third party insurance? Discuss.

**Ans: The legal aspects of third party motor insurance are now codified under the Motor Vehicles Act, 1988. The provisions are the pivot around which the entire insurance aspect of motor transport hinges. All the sections of the Act are inter-related and have to be examined thoroughly.**

**Sec. 146 of M.V. Act prescribed the necessity for insurance against third party risks - no person can use a motor vehicle in a public place unless there is in force in relation to that motor vehicle, by that person or an other, a policy of insurance. A vehicle carrying or meant to carry hazardous or dangerous goods should have a policy under the Public Liability Insurance Act, 1991 also.**

**Sec. 146 seeks to protect the members of the public traveling in vehicles or using the roads (public places) from the financial liability caused by risks attendant upon the use of the motor vehicles. On the roads by making third party insurance compulsory for mass.**

**Exemptions: The provisions relating to compulsory for third party insurance do not apply to any vehicle owned by the Central Govt. or State Govt. and used for Govt. purposes unconnected to any commercial enterprises. The Govt. has been given power to grant an exemption to any vehicle owned by**

- (i) The Central Govt. or the State Govt. if the vehicle is used for Govt. purposes unconnected with any commercial activity;**
- (ii) Any local authority**
- (iii) Any state transport undertaking.**

**The above exemption is available only if a fund is established and maintained by that authority for meeting any liability arising out of the use of any vehicle. The fund has to be established under the rules framed under the Motor Vehicle Act.**

3 (a) What is the relevance of "utmost good faith" to life insurance contracts? Are there any exemptions to this concept?

**Ans:** It is the duty of the proposer in a life contract to make a full disclosure to the underwriter of all material facts. In the absence of this, the contract can be held void ab-initio.

Every circumstance that would have a bearing on the judgment of a prudent insurer in fixing the premium or in determining the acceptability or otherwise of a proposal is a material fact, ex: facts regarding age, height, built, nature of occupation, personal habits like smoking, drinking etc., medical history, previous insurances etc. The proposer cannot be excused for not disclosure on the ground that he did not think that the fact was material. The duty of non-disclosure operates till the risk commences. Circumstances arising after the commencement of the risk should normally not affect the contract unless one of the conditions agreed to between the parties prescribes such a disclosure.

Exceptions to the rule - facts of common knowledge which every one is supposed to know, facts of law, facts which a survey would have revealed, facts which could be discovered reasonably by reference to previous policies and records available with the insurer.

- (c) The entry of a number of insurance companies - doing life and general business - India necessitates the exercise of a proper supervisory role on the part of the regulator.

In this context, kindly indicate a few of the areas where you expect the Insurance Regulatory and Development Authority to exercise its supervisory role.

**Ans:** The IRDA should have an inspection team conversant with life insurance who would test check the various schemes available with the different life insurers. Those schemes that are not in public interest or that are favoring particular set of people unduly must be altered, amended or scrapped. Underwriting must be made profitable.

Similarly the rates charged for various general insurance products must be scrutinized by a team of experts knowledgeable about general insurance and any undue favour shown to any particular section must be rectified or withdrawn.

Thus underwriting must be pruned both in life and general insurance.

Similarly the teams of IRDA should test check claim settlements to weed out wrong payments.

The investment of funds must also be monitored in the general interest of the industry. It must be aimed at the growth of economy.

Autonomy in administration and policymaking must be allowed and inhibiting controls must be relaxed or withdrawn.

IRDA and TAC must act as watchdog and not as policemen.

These measures will augment growth.

- 4 (a) A personal accident insurance is not a contract of indemnity. Discuss

**Ans:** Personal Accident insurance covers one against death or disability resulting from accidental bodily injury and pays a fixed compensation. The death or injury should result solely and directly from accidents caused by external, violent and visible means.

The amount of compensation is predecided in the policy for death or disabilities due to accident. This amount has a direct bearing on the earning capacity of the insured. Normally 50 to 60 times of the monthly income are laid down as the limit i.e. the Capital Sum (similar to Sum Insured). This may vary.

This policy is called a benefit policy because the compensation for death or disability is paid as a benefit stipulated in the policy. The benefit is prescribed for the loss of earning capacity. The principle of indemnity states that the loss suffered by the insured should be made good so that he can be reinstated to or placed in the pre accident condition. In respect of human beings it is impossible to measure the loss of earning capacity by monetary standard. Human life is invaluable. An advocate may lose his hand but his capacity to earn is not affected by the loss of his hand as his job is mainly arguing the case before the judge. He may earn much more than earlier after the accident. Similarly an heir is getting a fat return from the patrimony left by his father. His income is not affected by any loss or injury to his person. The interest income on deposit is not reduced by the loss of one's leg or eye. Hence the principle of indemnity does not apply to Personal Accident Insurance and the insurance contract is based on the benefit he would like to have for different contingencies for which he pays the premium. The insurer therefore decides on the basis of the individual's salary or earnings as to what benefits he can be given when both mutually agree, the capital sum is decided when both mutually agree, the capital sum is decided and the policy is drawn. Here the

**compensation or benefit is not called the sum insured unlike in other insurances.**

4 (b) What are the special features of a term insurance life policy? Explain

**Ans: Term assurance means that the insurer promises to pay the insured, for a nominal premium, the face value mentioned in the policy if the insured dies within the term or the period of the policy.**

**The special features of the term assurance policy are as under:**

- 1. This is a short-term policy ranging from year and above. It provides risk cover only for a prescribed term. In case the policyholder lives till the end of the term, the risk cover ceases. No insurance benefit payment is made to him. The premium paid is not refunded. Premium can be refunded if convertible term assurance cover is taken.**
- 2. The premium under term assurance policy is lower than the premium charged under other types of policies like endowment or whole life policies.**
- 3. It is not a savings policy. No reserve is accumulated. Hence no surrender value or paid up value is allowed. Therefore no loan can be obtained under these policies.**
- 4. When somebody wants cover for a high amount but is not able to pay high premium when income is low initially, as is the case for whole life or endowment policy, this policy is most suitable.**

**Some of the term assurance policies are:**

- 1. Bima Sandesh Plan 94 of LIC**
- 2. Life guard of ICICI - Prudential**
- 3. Term Care Plan of Allianz Bajaj.**

5 (a) Distinguish between a marine “open cover” and a marine “open policy”

**Ans: An open policy, also known as a floating policy, is issued in general terms to cover a large number of dispatches in a period - say 12 months showing the total of the estimated value of all such sendings as the sum insured. It is stamped and is issued for 12 months. The amount of each**

dispatch reduces sum insured. Declaration is received or certificates are issued for each dispatch, which need not be stamped.

Open policy is issued usually for inland sendings. If the sum insured is exhausted, the same is increased by endorsement or a fresh open policy is issued. If after 12 months, balance sum insured is there, and premium is already collected for total sum insured, a proportionate amount is refunded on undeclared balance. The advantages of open policy are

1. The cover is automatic and continuous
2. Labour is reduced
3. Saving in stamp duty.

Open cover is a letter of cover or a gentleman's agreement issued in general terms promising to hold all exports and imports covered during a period of 12 months. It is a permanent form of insurance protection.

It is unstamped and issued for 12 months. Period is important and not sum insured like open policy. Certificates or specific policies are issued affixing stamps covering each shipment declared. There is no limit to the total number or value of shipments that can be declared under open cover.

Open cover is issued for exports or imports usually. If any shipment is not declared by oversight, and a loss under it occurs, there is provision to hold it covered and to pay the claim after ascertaining the lapse is genuine and unintentional.

Common features of both open policy and open cover are basis of valuation, rate, terms, declaration clause, and cancellation clause, per bottom limit and location clause.

Disadvantage is limitation of value per bottom and location.

Differences: Normal practice is to issue open policy for inland sendings and open cover for overseas shipments. Open policy is stamped and open cover is not and so no legal validity. Sum insured gets reduced in open policy which is issued for a fixed sum insured, but no such reduction of sum insured in open cover which holds all the shipments covered. Period is important in Open cover, not sum insured.

- 5 (b) When a policy is issued covering a motor vehicle, a certificate of insurance is also issued. Is it necessary to do so? Discuss.

**Ans:** In motor insurance the Motor Vehicles Act of 1939 governs some of the important provisions and subsequent amendments as enacted by the central government and also by the Motor Vehicle Rules framed by the Centre and States. For instance it is a requirement of the Act that no power driven vehicle can ply on a public road without a valid insurance. This is an important requirement included in the Act to safeguard the interests of the third parties using the public roads who are exposed to accidents causing injury and death by the motor vehicles. So the owners of vehicles are obliged to take insurance. When a policy is issued by the insurer it is the evidence of the contract between the insurer and the owner of the vehicle and it is not the contract itself. When financiers and banks are interested in the vehicle, the policy is kept by them in their records. The owners are keeping at least only a copy of the policy. Even when no financier is interested in the vehicles, the policies are kept by the owners in their files and hardly any one carries them in the vehicles.

The certificate of Insurance in Motor Dept. is a legal requirement and the Act specifies even the format in which such certificates should be issued. Even if no policy is issued, a certificate is a must and the Act categorically states that the policy of insurance shall be of no effect unless a certificate of insurance in the prescribed format under the Rules is issued. The police authorities and the RTO accept only the certificate as evidence of the existence of insurance as required by the Act. This certificate of insurance is required to be carried in the vehicle and to be shown to the authorities when demanded. The vehicles are plying through out the country and when they meet with accident at a place far away from the headquarters of the vehicle owner, it is from the certificate of insurance that the police find out the insurance details and they and the parties file the case against the owner and insurance company. These certificates are valid for the period noted in them unlike the cover notes, which are valid for 15 days only from the date of issue and cannot be relied as evidence in a court.

**So policy or no policy, a certificate of insurance in Motor Dept. is indispensable.**

6 (a) What are the risks that a life insurer faces while providing a cover to the customers? Elaborate.

**Ans:** The Actuarial Society of India has identified the following risks, which are faced by the life insurance companies, while issuing policies.

(i) Asset risk - is called as asset depreciation risk and includes various factors that cause the value of asset to fall. Capital funds are affected directly by a decline in value of assets. Value of assets may decline due to the following:

When the insurer lends his funds and the borrower fails to fulfill his obligations there is a fall in the market value of the insurer's investment assets, unless there is a change due to interest rate movements.

Default of the part of the borrower in repayment of the principle.

Two ways to counter asset risk are credit analysis and investment analysis.

(ii) Pricing risk: caused due to inadequate pricing of the product. The risk arises, as the future operating results are not anticipated while pricing the product. This risk, if not properly controlled, will lead to the diminution of the assets and to insolvency. Inadequate pricing is the result of occurrence of events at rates higher than anticipated during the pricing and relate to - mortality, morbidity, lapse or expense, lower investment income, lower sale and increased costs to be met.

(iii) Interest rate risk: this covers alteration in the values of assets and liabilities due to interest movement. Risks faced by the insurer can be summarized as:

Loss incurred on bond sales and mortgage prepayments as a result of fall in interest rates.

Losses increased due to asset - liability mismatches.

Increased withdrawals by policyholders due to increase in interest rates.

Fall in asset value due to increased rate of interest.

Loss occurrence due to sales of assets by insurers to meet obligations.

(iv) Miscellaneous risk - that are not covered under the three heads above - administrative and managerial risks mainly such as tax claims, regulatory changes, product obsolescence, policy holders leaving the company, misconduct of agents and employees, market risk caused due to expansion of business in new area, market risk due to geographical expansion of business, improper management, law suits and run on assets of the insurers on fees of insolvency.

(b) Explain the need why limited companies secure a cover under the directors and officers liability insurance.

7. Write short notes on the following:

(a) Gerontology

**Ans: Gerontology:** means the scientific study of old age, the process of ageing and the particular problems of old people. In India, as on 2000 we are said to have a population of 68.5 million people who are 60+ and this figure is expected to go up to about 320 million as per UN estimation by 2050.

Earlier we were having joint family system and the younger members looked after the old people who formed a part of the family. With the breakup of joint family, the worst affected were the old people who had to fund for themselves. It has therefore become necessary for the society or the Govt. to find out a way to take care of the old people.

One of the reasons for the increase of old people is the advancement in the medicines. The average age of an Indian had gone up from 35 to 50 and now beyond 65 years. The population explosion (fertility) had also contributed to the increase.

The problem of old age is the decline in the earning power and also the poor health.

When the people are young they do not save some portion of their earning for the old age. The cultural background and illiteracy also left their effect on people in not saving for the rainy day. The awareness has slowly dawned on them now-a-days and a small percentage of people has started to contribute to many pension schemes.

The govt. has also started showing concession to senior citizens by allowing a discount on the fare in air and train travel. Senior citizens are given .5% more interest on their deposits with the banks. This is only a beginning. The recommendation of the committee on OASIS is also significant in this context.

Unless the economic position of individuals improves and the per capita income goes up, any attempt to alleviate the sufferings of old people may prove futile. Only more number of old age homes will spring up in the country.

(b) Level Premium Plan

**Ans:** Under the level premium plan the premium remains uniform every year but the premiums collected in the early years are higher than what is required for payment of claims during these years. This enables the insurer to create a fund from which the future payment of death claims and the additional cost of insurance even though the premium remains the same throughout. This plan is an answer to those who find payment of a large sum, as single premium is difficult.

The two advantages of level annual premium are:

1. The excess premium paid in the early years of policy enables the insurer to pay death claims and the increased cost incurred at the advanced age.
2. The payment of premiums are easier and affordable for the insured than under single premium plan since the insured can pay the annual premium from their income, the installment being relatively small.

(c) Personal Accident Social Security (PASS)

**Ans:** This scheme was introduced in 1985 to help poor families whose annual income was Rs. 7200 or less. The beneficiaries were landless labourers and traditional craftsman.

As per the scheme if a wage earner of a family is between 18 to 60 years and dies in an accident, the family is given Rs. 3000.

This benefits Surviving spouses

If not the wife, the amount is equally shared by the children.

If not children, the amount is payable to dependent parents.

The administration of the scheme is as under:

An application is made to the claims enquiry and settlement officer of the District or Taluka notified by the State Govt. The application is to be made within 45 days of the death for claims arising within the district or within 90 days of death for claims from other districts, State or Union Territory.

The Claim Settlement Officer

1. will receive applications from claimants
2. will enquire into claims whenever he feels necessary
3. will ask reports from police and medical authorities
4. will select and pay the right claimant.

Initially the State Govt. pays the claim amount to claimants and then approaches the insurance companies who reimburse them with the amount after receiving the reports and documents.

(d) Electronic Equipment Insurance

**Ans:** Electronic Equipment consists of CPU, Keyboard, Monitor, printers, UPS, system software etc. Some examples are Electronic Data Processing (EDP) equipments, telecommunication and navigational system, computer system for production plant and machinery etc.

E.E.I. is a comprehensive cover against all risks for electronic equipments. The covers are against

1. breakdown
2. fire and allied perils
3. burglary
4. terrorism

The sum insured shall be equal to the cost of replacement of the insured equipment by new property of the same kind and source capacity, which is replacement cost, freight, dues, customs duty and erection cost.

The policy covers

1. Material damage
2. Damage to external data media
3. Increased cost of working

(e) Warranty

**Ans: Warranty:** is a statement by which the insured undertakes that some particular thing shall not be done or that some conditions shall be fulfilled or whereby he affirms or negates the existence of a particular state of facts. Warranty can relate to present facts at the time of entering into a contract or future state of affairs. It is an undertaking given by the proposer.

Warranties are two types - implied and express. Implied warranties need not be put in black and white on paper. Implied warranty is applicable in Marine insurance and not in Fire or Miscellaneous classes. E.g. that the marine adventure proposed is a lawful one; that the vessel is seaworthy etc.

Express warranty is incorporated in the policy.

e.g. no night work will be carried on in the factory (Fire Ins.)

If a warranty is breached, whether material to loss or not, the policy becomes voidable at the option of the insurer.

Warranty is a condition precedent to the contract as it does not allow the risk to change but requires it to remain same throughout the policy period as it was at the commencement.