

**Institute of Actuaries of India**

**ST7 – General Insurance : Reserving &  
Capital Modelling**

**November 2012 Examinations**

**INDICATIVE SOLUTIONS**

### **Solution 1 :**

The different types of inflation affecting claim payment amounts are:

- price inflation will affect the costs of property repair and replacement costs for motor and household business
- earnings inflation and judicial inflation will affect bodily injury claims for liability business.
- The expenses of settling claims will also be subject to inflation.

Inflation's influence on investment strategy:

The insurer will need to consider investing in assets whose income and capital values also tend to increase with inflation, in order to achieve a matched position. Such assets could include index-linked securities if these are available in the relevant currency, but we should bear in mind that the inflation affecting the claims and other outgo may not be the same as that on which the index is based.

Both equity shares and property are real investments and may increase at a rate in excess of price inflation.

The income and capital values generated by investment in equity shares and property may in the long run tend to keep pace with claims inflation, but may be subject to considerable fluctuations in the short term.

**[Total 5 Marks]**

### **Solution 2 :**

It is a form of professional liability insurance

And provide coverage against the costs of lawsuits

due to professional negligence act or omission by a health care provider in which the treatment provided falls below the accepted standard of practice in the medical community and causes injury or death to the patient, with most cases involving medical error.

There could be significant reporting delays as an injury due to negligence might not appear for few years Or, get worse over time whereas the sufferer had expected the problem to be only temporary, or because the seriousness of the condition only comes to light in a later routine check-up

Claim settlement will involve litigation for any claim of significant size, even though most cases are resolved out of court before they go to trial and it depends on the extent of the damage

Coverage is mostly on claims made basis

Therefore it is long tailed class of business whether the cover is written on a claims-made or a claims-occurring basis...compared to motor liability insurance

Claim frequencies on this classes of business tend to be low as medical profession is generally very well regulated and before anybody can practice requires a license.....also public will not go to a professional for treatment not having a license

Claim cost distributions tend to be more widely spread than for property classes, and there can be some extremely large individual claims that take many years to settle

Accumulations of risk arise as a result of a bad portfolio for example if the company has insured the professional from one particular hospital not having good risk management procedure or validations before employing professionals

Holding Medical indemnity insurance is often a legal or regulatory condition of being allowed to practice as a medical professional or may be imposed as a condition by a professional body

Due to difference in the local regulations, claims development patterns will also vary significantly between countries

The most commonly used measure of exposure is turnover of the medical professional or the employer of the professional

[Total 5 Marks]

**Solution 3 :**

Data to be requested:

- Historical Ground-up losses for Fire portfolio of the company
- Historical exposures
- Projected Exposure for period under consideration
- Industry-wide data on large losses, if available.

Modelling exercise:

- Do data checks.
- Exclude open claims or project ultimate losses for them
- Adjust all losses for inflation
- Decide on a suitable threshold (below 1 M) and consider all losses with trended value above that layer (as attritional and large losses have different distributional properties)
- Trend the exposure values
- Calculate the frequency and severity of large losses
- Fit appropriate distribution to frequency (Poisson, Negative Binomial) and severities (lognormal, log gamma)
- Simulate claim counts and claim sizes for correct exposure period
- Calculate the average cost of layers (Rs. 4 m xs Rs. 2 m, and Rs. 5 m xs Rs. 1m)
- Load for expenses, etc.
- Compare to the premiums – do a cost benefit analysis and take a call

[Total Marks – 5]

**Solutions 4 :**

Possible reasons are:

- Reinsurance pattern based on XOL layers, hence slower to develop
- Difference in business mix between reinsurer and industry
- Industry data inaccurate due to different companies providing data in different formats
- Reinsurer data may be from a different geography
- Reinsurer data based on underwriting year triangles, whereas industry data based on accident year triangles

**Pros and Cons:**

**Pros:**

- Ability to use chain-ladder for reserving so using actual loss experience (compared to expected loss ratio method)
- More credible than own data as that will be sparse at the start

**Cons:**

- Inaccuracy in industry data
- Reinsurer data not appropriate for primary business
- Different business mix by geography/ product

**[Total Marks – 5]**

**Solutions 5 :**

- i. Amount paid by GDD:  $10\% * 1 \text{ cr} = 0.1 \text{ cr}$ .  
Amount paid by BRE: Rs 1.5 cr.  
Amount paid by ABC:  $\text{Rs } 3\text{cr} - 0.1 \text{ cr} - 1.5 \text{ cr} = \text{Rs } 1.4 \text{ cr}$ .  
Note that the reinstatement layer will be utilized for the next claim. **[2]**
- ii. Reinstatement premium paid:  $100\% * 130\% * 3 \text{ lakhs} = \text{Rs. } 3.9 \text{ lakhs}$ . (since full layer is exhausted by the first claim). **[3]**

**[Total Marks – 5]**

**Solution 6 :**

i) A captive insurance company is an insurer that is wholly owned by an industrial or commercial enterprise and set up with the primary purpose of insuring the parent or associated group companies.

and retaining premiums and risk within the enterprise.

An open market captive is free to provide insurance to risks other than those of its parent, providing this does not change its main purpose .

Often provide insurance to the parent company's customers.

**[2]**

ii) The mobile phone company may want to set up a captive for following reasons:

- To fill gaps in insurance cover that may not be available from the traditional insurance market
- Cover is available but it's too expensive.....such as in hard market conditions
- or does not meet the all the risks that the company wants to get coverage for
- **Latent Claims Risk Not Covered:** Mobile Phone Company may want to insure risks such as product liability which provide coverage against let say loss of hearing or brain cancer which are generally excluded in the general product liability cover .....**[1 – Other example such as Nano Technology or pollution will also gain marks]**
- To manage the total insurance spend of large companies or groups of companies....It can bring economies of scale due to it's size.
- For example risks which have very predictable claims experience such as healthcare or workmen's compensation...this will avoid passing the profits to the insurance company
- To enable the enterprise to buy cover directly from the reinsurance market rather than direct insurers

- Above can also be done if the cover is not available directly in the insurance market i.e. access to reinsurance market
- Captive insurance offers flexibility in policy design and coverage, premium payment timing and claims handling
- Captive can retain risks or limits its exposure to large and big risks through reinsurance ....such as workmens compensation or liability risks above INR5m
- Or it can pass on the 100% risks to external reinsurers through fronting arrangement.....this is done mostly for risks where the cover in the direct market is too expensive or not available...such as professional liability
- To focus effort on risk management... This will enable the company to analyze the cost of claims and premium ...certified by an actuary etc
- To gain tax and other legislative or regulatory advantages... such as Bermuda or Luxembourg
- The parent's premiums to the captive may be tax-deductible by the parent at the time the premiums are paid, even though the loss covered by the captive is still contingent and has not yet actually resulted in a claim under the policy issued by the captive. In the absence of a captive, it is generally impossible for a company to deduct a reserve for an unpaid liability until all events necessary to determine the existence and the amount of the liability have actually occurred.
- Above, is generally become the secondary criterion as regulations are getting tighter and tighter
- Captive can be used by the mobile company to provide insurance to it's customer...product insurance....theft insurance etc...This could be beneficial in terms of customer service, claims and third party costs and retaining all the customer information.

(7)

[Total Marks-9]

### Solution 10 :

Claims reserves are set aside in order to meet future liabilities as they fall due

Since the claim liabilities are uncertain both in terms of the amount and time

It is difficult to estimate the reserves that will be needed to pay the liabilities and this give rise reserve risk or uncertainty....The risk is that the reserves are not adequate to meet the future liabilities...

The risk is particularly significant for long tailed classes of business due to significant reporting and settlement delays...

1. **Claim frequencies** may be subject to random fluctuations, and may also change over time say, due to a changing attitude of policyholders to claiming. Especially, in the case of bodily injury claims for example whiplash claim in UK
2. **Claim amounts** may also be subject to considerable variability. ...
3. **Higher than expected court awards** -changes in policy towards ex gratia payments or the attitude to borderline cases may affect settlement patterns. The level of settlements for injury may not follow any price or earnings index, but have sharp upward movements after particular judicial awards, followed by a period of stability.
4. **Changes in Settlement Procedures** : These could arise in a number of ways, such as policy decisions to press for early settlements, changes in claims handling efficiency, staffing levels and closing-off exercises on outstanding claims.
5. **Large Claims:** Large claims usually have a longer settlement pattern than small ones. Any change in the mix of severity of claims or random variations in number, amount and date of payment will change the overall settlement pattern.

- 6. Changes in Portfolio Volumes:** There would be a change in underwriting standards and the type of risk brought about either explicitly, by extending cover to certain policyholders previously declined cover, or implicitly, by starting to charge below-market premium rates. With the increase in the portfolio volumes, the numbers and experience of claims staff would not keep pace with the changing portfolio, at least initially, so the claims handling procedures would change. This could lead to delays in computer notifications, less thorough investigations and delays in settlements with potentially higher ultimate costs.
- 7. Change in Mix of Business:** Consider a company with a single private motor classification. If it experiences a swing away from predominantly non-comprehensive business to comprehensive policies then not only will the claim size distribution be significantly different, but also the reporting and settlement patterns will change.
- 8. Change in Policy Conditions:** Extending private motor cover to broken windscreens without application of an excess and without any effect on the NCD or granting protected NCD's for a minimal
- 9.** Arbitrary premium could cause the incidence of claims to increase sharply and have a significant effect on the claim size distribution.
- 10. Aggregate Deductibles:** Contracts are common, particularly in the London Market, which provide coverage excess of underlying deductibles. In such cases there is often a time lag before the insurer is notified of claims or books claims to the relevant layers, or makes claims payments.
- 11. Premium Rates:** Rate changes will affect any projection methods such as BF or (Generalised) Cape Cod which use initial expected loss ratios.
- 12. Computer Systems:** Data can be processed incorrectly owing to a misunderstanding of how the computer system works. Knowing answers to questions such as 'Are premiums Gross or Net?', 'Do commissions include acquisition costs such as premium tax, profit commission, etc.' is important.
- 13. Availability of Data:** It is important to store information which can be accessed and reported in the format required. Availability of all data, be they manual or computer records, is essential for proper reserving.
- 14. Reliability/Credibility of Data:** The "garbage in – garbage out" scenario is highly relevant in claims reserving. Data can be processed wrongly owing to a processing technician's lack of training or understanding. Clean, credible data are all-important when establishing the best estimate of the reserves to be carried in the company accounts.
- 15. Processing Backlogs:** If the backlog is seasonal, for example owing to holidays, this may be a regular occurrence and statistical developments may not be distorted. If however, the backlog has arisen for unprecedented reasons which had not happened in the past, then subjective allowance must be made to accommodate any statistical distortion which results.
- 16. Heterogeneity of Data:** It is important to divide the data into homogeneous classes for correct reserve estimate. However, changes in characteristics over time will affect claims development. Unless these are known and allowed for, incorrect reserve estimates will result. Data constraints often prevent the statistician from dividing his database into homogenous sub-sets. If heterogeneity cannot be avoided, the statistician must apply subjective analysis when establishing outstanding claims reserves.
- 17. Changes in Legislation:** Changes in legislation, whether fiscal or otherwise, are clearly factors beyond the control of individual insurers. An increase in the rate of VAT could result in increased claim costs for motor car repairs effected after the relevant date, whether or not the damage was inflicted before the relevant date.
- 18. Social Environment:** A more sympathetic attitude towards disabled claimants may be reflected in higher compensation payments awarded by courts, particularly where the payment is determined by a jury.
- 19. Weather Conditions:** The vagaries of the weather can result in a fluctuating incidence of claims between different accounting years, which may give rise to different settlement patterns. Infrequent climatic events, such as typhoons, hurricanes and other catastrophes, can also complicate the analysis of past experience.

- 20. Expert Judgment:** There could be significant bias in the selection of assumption or results. Also, defined as human error or model error.
- 21. Currency Movements:** For risk groups of an international nature, the currency in which a claim is made may not be known in advance. Even where the policy conditions prescribe payment in a particular currency, the amount of claim ultimately paid may effectively be linked to some other currency, depending on the location of the claim event or on the country in which court action was pursued.
- 22. Miscellaneous:** Some methods of estimating outstanding claims involve the calculation of ratios of claims paid to premiums received. In such cases, it is important to be aware of any changes in the general level of premium rates and to adjust the ratios for such changes so that the figures examined are on a consistent basis.
- 23. Net Liability Calculations:** Net liabilities can be calculated either directly through Net data or by analyzing Gross and Outwards reinsurance data separately. Both methods shall provide different results.
- 24. Catastrophe Covers:** The treatment of large claims and catastrophe covers can produce distortion in the results as there are a number of ways in which allowance is made for these.

[Total Marks-10]

**Solution 8 :**

- i. &  
ii.

<i>In Rs. Crores</i>	1/4/11 - 31/3/12	1/4/12 - 31/3/13
Written Premium (A)	270	360
EP b/f (B)	0	135
EP c/f ('C) = (A) / 2	135	180
Premium Earned (D) = (A) + (B) - ('C)	135	315
Claims Paid (E)	72	180
OS+IBNR b/f (F)	0	36
OS+ IBNR c/f (G)	36	84
Incurred loss (H) = (E) - (F) + (G)	108	228
Expenses (I)	30	36
Underwriting Income (J) = (D) - (H) - (I)	-3	51
Investment Income (K)	20	25
Total Income (L) = (J) + (K)	17	76
Loss Ratio (M) = (H) / (D)	80.0%	72.4%
Expense Ratio (N) = (I) / (A)	11.1%	10.0%

- iii. Free Reserves as of 31/3/12 = Rs 100 cr + 16.8 cr = 117 cr  
Free Reserves as of 31/3/13 = Rs 117 cr + 76 cr = 193 cr.

iv. Stress Scenarios:

Stressed WP = 11-12: Rs 270\*0.9 = 243 cr, 12-13: Rs 360\*0.9 = 324 cr.  
Stressed LR = 11-12: 80%\*1.25 = 100%, 12-13: 72.4%\*1.25 = 90.5%  
Expense Ratio: 11.1%\*1.25 = 13.9%, 10%\*1.25 = 12.5%

[Marks also awarded for candidates assuming LR/ER+25%]

	1/4/11 - 31/3/12	1/4/12 - 31/3/13
Written Premium (A)	243	324
EP b/f (B)	0	122
EP c/f ('C) = (A) / 2	122	162
Premium Earned (D) = (A) + (B) - ('C)	122	284
Incurred loss (H) = (D) * (M)	122	257
Expenses (I) = (A) * (N)	34	41
Underwriting Income (J) = (D) - (H) - (I)	-34	-14
Investment Income (K)	20	25
Total Income (L) = (J) + (K)	-14.0	11.7
LR (M)	100.0%	90.5%
Expense Ratio (N)	13.9%	12.5%

Free Reserves as of 31/3/12 = Rs. 100 cr. -14 cr. = 86 cr.

Free Reserves as of 31/3/13 = Rs. 86 cr. + 11.7 cr. = 97.7 cr.

[Total Marks – 15]

### Solutions 9 :

i. (4)

#### Paid Losses - Cumulative

Accident Year	12	24	36	
2010	3,000	4,800	5,400	
2011	6,000	9,600		
2012	9,000			
	12 - 24	24 - 36	36-48	
Link Ratios	1.600	1.125	1.000	
Cumulative Dev. Factors	1.800	1.125	1.000	
Ultimate Losses	16,200	10,800	5,400	Total 32,400

#### Incurred Losses - Cumulative

Accident Year	12	24	36	
2010	5,500	6,200	5,400	
2011	10,000	13,800		
2012	27,000			
	12 - 24	24 - 36	36-48	
Link Ratios	1.290	0.871	1.000	
Cumulative Dev. Factors	1.124	0.871	1.000	
Ultimate Losses	30,343	12,019	5,400	Total 47,763

ii. The divergence between paid and incurred chain-ladder projections may be because of:

- Payments are made after claims are incurred. So, for early development periods (that is, those that are less developed) the paid claims data can be very sparse and hence unreliable for projection, leading to potentially different paid and incurred projections.



- b. Disputed claims may be slow to settle and are more subject to change.
- c. One pattern may be more volatile than the other, which makes projections difficult.
- d. At later development periods there may be only a small number of open claims remaining, with the remaining claims all settled. In such cases it may appear, by looking at the paid claims development, that there will be no future development and hence a paid link ratio model is likely to give a different answer to an incurred link ratio model.
- e. Changes to case reserving procedures over time.

(3)

iii.

**Avg Case Reserves**

	12	24	36
2010	500	700	-
2011	500	2,100	
2012	1,500		

For the above diagnostic, it appears that there has been a change in case reserving procedure. (6)

iv. Berquist-Sherman Method is a technique to adjust for case reserving changes.

This technique produces adjusted development patterns that are consistent with the current reserve levels and settlement rates that are thought to apply at the time of the latest diagonal. We derive these adjusted development patterns, by restating the historical development data to be on the current reserving or settlement basis.

For example, we restate the incurred claims by assuming that the historical level of case reserve adequacy is the same as the current level except for claims inflation trends. We can then build up a restated incurred triangle by multiplying the restated average outstanding claim size by the number of open claims and adding the paid triangles. (3)

- v. Stochastic methods are helpful in explaining parameter uncertainty and process uncertainty in loss reserve estimation process. That is loosely referred to as reserve variability. Standard methods do not accommodate model error. In this case, based on the calculated diagnostic, it is evident that it's an issue with case reserve strengthening. So, pure incurred chain-ladder is not an appropriate model to use. So, using a stochastic method will not help in this scenario. In general, stochastic methods do not necessarily provide a more accurate picture, when the data itself is biased. Therefore, the standard deterministic methods, with the Berquist-Sherman adjustments should be sufficient. (4)

[Total Marks – 20]

**Solutions 10 :**

i)

Diversification benefit arises because the various risks in a general insurance company's operations are not perfectly correlated.

Since risks are not perfectly correlated or 100% correlated, the sum of the standalone capital requirements for each risk will usually be greater than the capital requirement for all risks combined.

Correlation can arise between class of business, policy years etc.

Generally, the diversification benefit will arise if the correlation between different risks or portfolio is

...negatively correlated. This means that 2 risk behaves in opposite directions.

For example, in the case of economic recession inflation increases which increases the average claims cost for motor damage but on the other hand people drive less which reduces the frequency of claims.

...completely uncorrelated. This means that events in two risks are completely independent.

For example, earthquake in Gujrat and forest fire in Himachal.

...positively correlated but assuming they are not perfectly correlated or 100% correlated. This means that two risks have some common driving factors but they are completely dependent.

For example, during economic downturn we expect both inflation and theft rates to increase but the change in both of these factors may be completely dependent to each other.

Good candidate will stress on the fact that....

Operations of a general insurance company are generally positively correlated but not perfectly correlated. Good companies tries to maximize the diversification benefit by writing uncorrelated or negatively correlated business but due to complex nature of insurance business this may not be possible and we may always see a little implicit correlation between various risks such as macro-economic reasons.

....Law of Large numbers. Everything does not go wrong at the same time.

[3]

ii)

Diversification effect can be calculated by determining joint probabilities that capture correlations between variables. If the determination of a joint distribution is not possible, then more approximate methods of combination will need to be uses.

Deterministic way of allowing for diversification benefit is using the variance and covariance approach.

Notations:

TC = Total Capital Required

CR = Capital Required for respective class

Motor = A, Property = P and Marine = M

Diversified TC(A+P+M) =

$$\sqrt{CR[A]^2 + CR[P]^2 + CR[M]^2 + 2 \times (Corr[A, P] \times CR[A] \times CR[P] + Corr[A, M] \times CR[A] \times CR[M] + Corr[P, M] \times CR[P] \times CR[M])}$$

$$= \sqrt{50^2 + 150^2 + 25^2 + 2 \times (.7 \times 50 \times 150 + .2 \times 50 \times 25 + .5 \times 150 \times 25)}$$

$$= \sqrt{2500 + 22500 + 625 + 2 \times (5250 + 250 + 1875)}$$

$$= \sqrt{25625 + 2 \times 7375}$$

$$= \sqrt{25625 + 14750}$$

$$= \sqrt{40375}$$

$$= 201$$

Therefore, Diversification benefit is approximately of INR 24M i.e Total Undiversified capital of INR 225M minus Diversified Capital of INR 201M

...Simple approach and can be easily applied using simple excel tools or back of then hand.

..may not reflect the correlation in the extreme scenarios.. in tail of the distribution...only reflect the correlation at mean level.

...For example, there may be a very low correlation between reinsurance failure and aggregate attritional claims volatility on an average but in case of extreme scenario such as flooding in large part of the country, it might have a significant impact on the reinsurance balance sheet as it will be having claims from various companies and it might threaten reinsurers solvency position causing higher probability of default on claim recoveries.

...it is very difficult to determine the correct level of correlations between classes of business.

.... more interested as how each risk or class of business correlates with the overall portfolio or insurance operations.

..Some of the disadvantages mentioned above can be overcome by stress or scenario testing

Or by using..... adjusted correlation matrix....Instead of filling a matrix with correlation factors that describe the average dependency across the whole distribution, we estimate only the dependency at the point we want to know it [probability of ruin].

Though this will only get appropriate results in a specific defined part of the distribution but we are only interested the capital above specified probability of ruin so the use of a tail correlation matrix is a good alternative. This approach will be dependent on the specific use of calculating diversification benefit.

[6]

### iii)

- specify the purpose of the investigation
- select an appropriate model structure (which business areas to include)
- set the risk measure, eg VaR
- determine the types of scenarios to develop and model (for example, interest rate environment, competitive environment)
- decide which variables (for example, claims costs, premium growth) to include, and their interrelationships
- collect data
- group and modify data
- estimate the parameters that should be used for each variable (that is, the mathematics that specifies the behaviour of each variable
  - choose a suitable density function for each of the variables to be modelled stochastically
  - estimate the required parameters for the chosen density function(s)
  - ascribe values to the variables that are not being modelled stochastically
- specify correlations between variables
- test and validate the reasonableness of the assumptions and their interactions (for example, the projection of future claim payments versus historical levels of claim payments)
- check the goodness of fit is acceptable and attempt a fit with different density function(s) if it is not
- construct a model based on the chosen density function(s)
- run the model many times, each time using a random sample from the chosen density function(s)

- produce a summary of results that shows the distribution of the modelled results after many simulations have been run
- run the model using different distributions / parameters to check sensitivity
- Continually update any model to remain relevant in the ever-changing environment in which insurers operate; the model must continue to reflect reality.
- Stochastic models test a wider range of scenarios as it produces the full distribution of possible scenarios. A deterministic/scenario analysis can only test a limited set of scenarios. Human brain may not be able to think of 25K of different scenarios.
- Similarly, a stochastic model makes it easier to explore “ripple effects”, that is, the knock-on consequences of the crystallization of a risk event.
- By estimating the full distribution of the aggregate result from the model, we can apply a number of different risk measures to the same set of final output. This may be important in sharing results with stakeholders who have different risk appetites or concerns.
- Even if we have calibrated individual stresses to represent a certain degree of extremity in their individual values, it is very difficult to combine those stresses and be sure that the final result represents a sufficiently extreme combination of circumstances. A stochastic approach – in theory at least – explores all possible combinations and can rank these against the chosen risk measure.
- We can derive a probability distribution from the outcomes of a stochastic model and calculate confidence levels, if required. While the assumptions are subject to parameter error, the model is at least explicit about the assumptions being made. We can also test the assumptions by different techniques.

[7]

#### iv.

...Catastrophic risks are risks of extreme losses due to events which are very rare or of low frequency but very high severity.

...can be of both natural earthquake and man-made events such as act of terrorism such as attack on the world trade centre in US...or severe recessions causing ripple effects.

It is correlated with other risks in extreme scenarios as follows:

Credit Risk - refers to the risk of loss if another party fails to perform its obligations or fails to perform them in a timely fashion. For general insurance companies key counterparties include reinsurers, brokers, policyholders, investment managers and companies. Reinsurance credit risk is usually the largest component of credit risk and deals with the potential bad debt on reinsurance assets.

..Big Cat event affecting many insurance companies leading to significant number of claims impacting the solvency position of reinsurer delaying recoveries or in worst scenarios causing defaults.

Market Risk - related to changes in investment market values or other features correlated with investment markets, such as interest and inflation rates and its impact on insurance business.

In the case of big natural catastrophes such as Tsunami in multiple parts of the world may lead to lower economic activity and availability of capital which may in turn increase the inflation and interest rates leading to fall in the market value of the assets or depressing the equity prices.

Operational Risk - refers to the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.

In the case of extreme events such as severe floods may lead to sudden rush of claims, putting pressure on the claims and IT department. This may lead to delay in claims payments attracting severe bad publicity and future business volumes.

Liquidity Risk - that the insurer, although solvent, does not have available sufficient financial resources to enable it to meet its obligations as they fall.

In the case of extreme events such as severe floods may lead to sudden rush of claims and due to the less liquid investments or unavailability of cash may not be able to make payments and regular business expenses leading to insolvency.

**[5]**

**[Total Marks – 21]**

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