

(2.30 Hours)

Marks : 75

Q.1 a) Say whether the following statement are true or false (Any 8)

08

1. Window dressing is a type of fraud
2. In secret reserves liabilities are other state
3. Continuous audit and internal audit are one and the same.
4. Audit of partnership firm is voluntary.
5. Audit program should be flexible
6. Memorandum of Association is a part of permanent audit file
7. Audit engagement letter provides the scope of audit.
8. Auditor can give suggestion for improving the internal control systems
9. Salary is vouched on the bases of salary register.
10. Rent is vouched on the basis of lease agreement

Q. 2 B) Match the Columns (Any 7)

07

1	Trail Balance	1	Telephone Bills
2	Secret Reserves	2	SA500
3	Audit Note Book	3	Cash Memo
4	Audit Evidence	4	Plant Register
5	Audit Sampling	5	Continuous process
6	Cash Sales	6	done by Management
7	Plant & Machinery	7	Audit Queries
8	Audit Planning	8	SA 530
9	Internet Audit	9	Bad Position
10	Telephone Expenses	10	Current Audit File

Q. 3 a) Explain the concepts of Audit plan & Audit Programme

(8)

b) What are Audit Working Papers What are its contents

(7)

OR

Q. 3 c) Explain the concept of Internal control its types & limitation

(8)

d) Explain the concept of Vouching "how will the auditor Vouch Cash Sales

(7)

Q. 4 a) Explain the Concept of Verification. How will the auditor verify Plant & Machinery

(8)

b) How will the auditor vouch a) Cash Purchase

(7)

b) Salaries & Wages

OR

c) How will the auditor verify land & buildings

(8)

d) How will the auditor verify the internal control procedure for credit sales

(7)

- Q. 5 a) Explain the process of internal control in details (8)
b) What are the General consideration for vouching (7)

OR

Q. 5 Short notes (any 3) (15)

- 1) Errors and its types
 - 2) Window Dressing
 - 3) Concurrent Audit
 - 4) Internal Check
 - 5) Verification of inventories
-

Duration: 2 ½ hours

Marks: 75

NB : (1) All questions are compulsory.

(2) Figures to the right indicate full marks.

Q.1 A) State True or false: (Any 8)

(8)

- 1) Good corporate governance results in higher financing cost.
- 2) Stakeholder theory demands that interest of all stakeholders should be ignored.
- 3) Japanese model is also known as two tier business model.
- 4) Fraud occurs when someone unknowingly lies to obtain advantage to which they are not otherwise entitled.
- 5) Ethics is not a normative science.
- 6) Religion is the oldest source ethical inspiration
- 7) Promoting corporate fairness, transparency and accountability are the hallmark for corporate governance.
- 8) The Audit committee has wide powers and also looks into the compliance with Accounting standards.
- 9) RBI plays an important role in supporting the concept of CSR in banking sector.
- 10) SEBI monitors corporate governance of listed companies through Clause 49.

B) Fill in the blanks: (Any 7)

(7)

1. The term deontology comes from the Greek word deon, meaning _____.

(Kantian/ Utilitarianism)

2. _____ is the study of principles, rules or theories that guide our actions and judgments. To determine what actually is morally right or wrong.

(Descriptive ethics/ Normative ethics)

3. Primary responsibility for preventing fraud in an organization is on _____.

(Audit committee/ Remuneration committee)

4. _____ Ethics can affect all areas of life, including family, finances and relationships.

(Personal/ professional)

5. The word “Ethics” which is coined from the Latin word ‘Ethics’ and Greek word ‘Ethikos’ pertains to _____. (Values/ Character)
6. _____ are related to traditional beliefs, customs and convention that guide man’s social behavior. (Morals/Habits)
7. The philosophy of _____ was first proposed and discussed by John Stuart Mill and Jeremy Bentham. (Deontology/ Utilitarianism)
8. _____ advertising is prominently seen in cases where advertising a particular product is banned by law. (Surrogate/ Puffing)
9. The Board of Directors must protect the rights of the _____ (shareholder/stakeholder)
10. SEBI to constitute a Committee under the Chairmanship of _____ to suggest changes in the Listing Agreement to promote corporate governance. (Shri Kumar Mangalam Birla/ Shri Rahul Bajaj)

Q. 2 A) What are Intellectual Property and mention ethical issues in copyright (8)

B) Mention the ethical issues in Perfect competition market. (7)

OR

C) Highlight the importance of business ethics. (8)

D) What is Ethics in Foreign Trade? (7)

Q.3 A) Describe Stewardship theory in detail. (8)

B) What is Unfair Business Practices? Discuss with examples. (7)

OR

Q3 C) What is CSR? Discuss CSR activities towards consumer and investors. (8)

D) Elaborate the principles of Arthashastra. (7)

Q4 A) What is Corruption? Explain different types of corruption. (8)

B) Evaluate ethical issues in Financial sector. (7)

OR

Q4 C) Explain different types of frauds in Insurance sector. (8)

D) Give relationship between Business Ethics and Business Development. (7)

Q5 A) Explain how Accounting standard and Accounting disclosure are interrelated. (8)

B) Discuss the significance of ethics in corporate governance. (7)

OR

Q 5 C) Write short notes on: (any 3)
(15)

- a) Stakeholders Theory.
- b) Teachings from Quran.
- c) Frauds in Banks.
- d) Principles of Business Ethics.
- e) Role of SEBI in corporate governance.

Time: 2:30 hours

Marks: 75

- N.B.
1. Q. 1 is compulsory.
 2. Q.2 to Q.5 are compulsory with internal choice.
 3. Figures to the right indicate full marks.
 4. Workings should form a part of your answer.
 5. Use of simple calculator is allowed.

Q.1 a. State Whether True or False. (any 8)

(08)

1. Balances with RBI are shown in the final accounts of Bank in Schedule 4.
2. Surplus on revaluation in banking Company should be treated as other Income.
3. A loss asset would be one, which has remained NPA for a period less than or equal to 12 Months.
4. Claim outstanding is shown under balance sheet of an insurance company under current assets.
5. Premium received in advance is shown under balance sheet of an insurance company under current liabilities.
6. CARO is not applicable to Banking Company
7. Goodwill is not depreciated.
8. Short term loan is a loan due for more than 5 years.
9. Cash deposited into bank increase cash inflow.
10. Whistle blower can be an employee.

Q.1 b. Match the column. (Any 7)

(07)

Column A	Column B
1. Ethics	(a) First time adoption
2. Ind AS 101	(b) Operating activities
3. Ind AS 102	(c) Financing activities
4. Decrease in stock	(d) Investing activities
5. Buy back of share	(e) Opened by Businessmen
6. Purchase of Fixed Assets	(f) Greek word
7. Previous year account	(g) Share Based Payment
8. Live stock	(h) General Insurance
9. Fire Insurance	(i) Not for the first year.
10. Current account	(j) Fixed Assets

Q.2 a. From the following information, find out the amount of provision required to be made in the profit and loss account for the ABC Bank year ended 31-3-18. (07)

Advances	Rs. Thousand
Standard Asset	1600
Sub- standard Asset	700
Doubtful Assets for:	
For one year	112
For two and Three years	56
For More than 3 years	38
Loss Asset	18

Q.2 b. Bill discounted (Rs) 1,85,06,000 (08)

Rebate on bill discounted (Rs) (01.04.2016) 3,21,600

Discount Received (Rs) 11,56,300

From the Following data calculate rebate on Bills Discount as on 31.3.2017 and give necessary journal entries.

Amount Rs	Period (inclusive of 3 days of grace)	Rate of Discount
19,65,000	01.06.2017	10%
26,10,000	15.06.2017	12%
27,60,000	28.06.2017	11%
33,90,000	08.07.2017	10%

OR

Q.2 From the following balances, prepare Profit and Loss Account of Shyam Bank Ltd. for the year ended 31st March, 2018. (15)

Particulars	Amount	Particulars	Amount
Interest on Loans	12,95,000	Rent and Taxes	90,000
Interest on Fixed Deposits	13,75,000	Interest on Overdraft	7,70,000
Rebate on Bills Discounted	2,45,000	Directors Fees	15,000
Commission	41,000	Auditors Fees	6,000
Establishment charges	2,70,000	Interest on Saving Bank Accounts	3,40,000

Discount on Bill Discounted (net)	7,30,000	Postage and Telegrams	7,000
Interest on Cash Credit	11,15,000	Printing and Stationery	14,500
Interest on Current account	2,10,000	Sundry Charges	8,500

Bad debts to be written off amounted to Rs. 2,00,000. Provision for taxation may be made at 50% of net profits. Transfer to statutory reserve to be @25%.

Q.3 Krishna General Insurance Company submits the following information for the year ended 31st March, 2018. (15)

Particulars	Direct Business	Re insurance
Premium Received	32,87,500	4,75,000
Premium Paid	-	2,37,500
Claims paid during the year	21,25,000	2,50,000
Claims Payable - opening	3,12,500	43,500
Closing	3,59,000	30,000
Claims Received	-	1,62,500
Claims Receivable - opening	-	32,500
Closing	-	55,000
Expenses of Management	1,15,000	-
Commission	-	-
On insurance Accepted	75,000	5,500
On insurance Ceded	-	7,000

The Following additional information is also available:

- Expenses of Management include Rs. 17,500 Surveyor's fees and Rs. 22,500 legal expenses for settlement of claims.
- Reserve for unexpired risk is to be maintained @ 40%. The balance of reserve for unexpired risk as on 01.4.17 was Rs.12,25,000

You are required to prepare the Revenue Account for the year ended 31st March, 2018.

OR

Q.3 From the following information as on 31st March 2018, prepare the Revenue Account of the Shiv Insurance Co. Ltd in respect of fire and marine insurance business. (15)

Particulars	Fire (Rs.)	Marine (Rs)
Outstanding Claims (opening Balance)	84,000	21,000
Claim Paid	3,00,000	2,40,000
Reserve for Unexpired Risk (opening Balance)	6,00,000	4,20,000
Premium Received	13,50,000	9,90,000
Agent Commission	1,20,000	60,000
Expenses Management	1,80,000	1,35,000
Re insurance Premium (debit)	75,000	45,000

The following points are to be consider:

- Expenses of management due on 31st March , 2018 were Rs. 30,000 and Rs.15,000 for fire and Marine Insurance.
- Reserve for unexpired risk is to be maintained at 50% and 100% respectively for fire and Marine Insurance.
- Premium outstanding as on 31st March, 2018 were Rs. 90,000 and Rs. 60,000 respectively for fire and Marine Insurance.
- Claim outstanding as on 31st March, 2018 were Rs. 30,000 and Rs. 45,000 respectively for fire and Marine Insurance.

Q.4 Following are the balances sheet of M/s Kesav Ltd. as on 31.3.17 and 31.3.16 were. (15)

Liabilities	2017	2016	Assets	2017	2016
Equity Share capital	3,00,000	2,80,000	Land and Building	5,40,000	3,20,000
8% Preference Share Capital	2,00,000	1,70,000	Plant and Machinery	2,55,000	1,80,000
General Reserve	1,20,000	95,000	Furniture and Fixtures	1,08,000	36,000
Profit & Loss account	1,48,000	1,39,000	Motor Car	85,000	1,00,000
12% Debenture	3,50,000	3,00,000	Inventory	2,20,000	2,83,000

Creditors	1,43,000	1,20,000	Accounts Receivables	2,45,000	3,44,000
Expenses Payable	84,000	77,000	Cash and Bank	64,000	58,000
Provision for Tax	92,000	67,000			
Proposed Dividend	80,000	73,000			
Total	15,17,000	13,21,000	Total	15,17,000	13,21,000

Additional Information:

- Issue of shares, debentures and additions to assets were made on 1st April, 2017.
- Depreciation @ 10% p.a. was charged on land building and furniture.
- Plant & Machinery and motor vehicles, both were depreciated by 15% p.a.
- Income tax paid and proposed dividend during the year were Rs.69,000 and Rs.80,000 respectively.

Prepare Cash flow statement as per AS- 3 (Use Indirect Method).

OR

- Q.4 The following is the Trial Balance of Neelam Ltd as on 31.03.2017. You are required to prepare Balance sheet as on 31.03.2017. (15)

Particulars	Debit	Credit
Cash in Hand	1,17,000	-
Cash at Bank	2,05,800	-
Share Capital	-	55,20,000
9% Debenture	-	18,00,000
Bank Over Draft	-	12,00,000
Investment (long Term)	60,000	-
Bills Receivable - Trade	8,40,000	-
Sundry Debtors	33,00,000	-
Sundry Creditors	-	14,40,000
Security Deposit (long term)	24,000	-
Profit and Loss account	-	17,40,000
Security Premium	-	5,40,000
Interest on Debenture accrued and due	-	40,500
Goodwill	3,90,000	-
Plant and Machinery (cost Rs. 30,00,000)	18,00,000	-

Land and Building (cost Rs. 15,00,000)	11,40,000	-
Furniture (cost Rs. 4,80,000)	2,70,000	-
Provision for Taxation	-	7,23,000
Advance Tax	6,00,000	-
Bills Payable	-	1,80,000
General Reserve	-	6,00,000
Stock in Trade	50,96,700	-
Capital Reserve	-	60,000
Total	1,38,43,500	1,38,43,500

Additional Information:

1. Sundry Debtors which are all unsecured and considered good, include Rs. 5,40,000 due for more than six month.
2. Investment represent 15,000 equity Share in ZEN Ltd of Rs. 10 each , Rs. 4 per share called and paid up.
3. Bills Receivable discounted with the bank, not matured till the Balance Sheet date, amounted to Rs. 45,000

Q.5 a. What are the benefits of Code of Ethics? (08)

b. What is Share Based Payment? What is the scope of Ind AS 102? (07)

OR

Q.5 Short note (any 3) (15)

1. Scope of Ind AS 101
2. SEBI And Whistle blowing
3. Cash and cash equivalent in cash flow
4. Money at call and short notice
5. Exceptional and Extra ordinary items.

Time 2.5 hrs

Marks : 75

- Note: 1. All questions are compulsory.
2. Figures to right indicate marks.

Q.1 a) Fill in the blanks: (Any Eight)

(8)

- a) Loan syndication by a financial intermediary is a kind of _____ activity.
- b) Commercial banks mainly involved in _____ activities.
- c) Merchant banks do not accept _____.
- d) The initial registration fees for merchant bankers is _____.
- e) The main aim of close ended fund is _____.
- f) Securitisation is mainly associated with the assets of _____ companies.
- g) _____ are financial investors that desire their value from the underlying financial assets.
- h) _____ is a term loan whereby the financial co. provides loan for a fixed period of time.
- i) The banker can retain the property for the payment of the _____.
- j) The main promoter of CDSL was _____.

b) State True or False (Any Seven)

(7)

- i) Credit rating agencies, factoring, discount house, etc. are specialized institutions.
- ii) Custodial service is provided to foreign investors.
- iii) Merchant bankers' services come under control of RBI.
- iv) Commercial banks can take up mutual funds business directly.
- v) Discounting a bill is much better than factoring.
- vi) Forward contracts can be traded only in organized exchanges.
- vii) Home loan account scheme is the scheme of LIC.
- viii) Consumer finance is also called as large loan companies.
- ix) Investors' has to maintain minimum balance in Demat account.
- x) Hypothecation is the opposite version of pledge.

Q.2 a) Discuss various fund based and fee based services in brief. (8)

b) After LPG, what growth has taken place in the financial service sector in India. (7)

OR

c) Describe services offered by merchant bankers. (8)

d) What are the guidelines issued by SEBI towards merchant banking? (7)

Q.3 a) Describe the structure of mutual fund operations in India (8)

b) Highlight difference between Factoring & Forfeiting. (7)

OR

c) Describe different types of mutual fund. (8)

d) Define forfeiting. Explain its merits and demerits. (7)

Q.4 a) Describe securitization. Explain its operational mechanism in detail. (8)

b) Define Options and state its types. (7)

OR

c) Discuss about financial derivatives and bring out their various features. (8)

d) Explain the causes for unpopularity of securitization. (7)

Q.5 a) Define Housing finance. Explain functions of NHB. (8)

b) Explain sources and terms of consumer finance. (7)

OR

c) Explain depository system and the eligibility criteria of being depository in India. (8)

d) Define pledge and explain the procedures of pledge/ hypothecation in securities. (7)

Time: 2 ½ Hours

Marks : 75

- N.B. 1. All questions are compulsory.
2. Each question has internal options
3. Figures to the right indicate full marks

Q.1 A Multiple Choice Questions (Any 8)

(8)

1. A Japanese company issuing Yen denominated bonds in the US market is example of _____ (foreign bonds/euro bonds/global bonds)
2. When a country experiences _____, its interest rates are likely to fall. (Boom/Depression/Recession)
3. Under _____ rate system, Central bank has the responsibility to maintain adequate foreign currency reserves. (BWS/Fixed Exchange/Floating Exchange)
4. A Letter of Credit which cannot be modified unless the exporter consents is called as _____ L/C. (Non Revolving/Non Transferable/Non Revocable)
5. In the case of _____ offering, the bonds convert into shares of the company that issued the bonds. (FCCB/FCEB/GDR)
6. _____ stage is the first stage in the process of loan syndication. (Pre-mandate/disbursement/Post-disbursement)
7. All transactions between ADs and their customers are governed by exchange controlled regulations of _____. (FEMA/RBI/FEDAI)
8. _____ is an NRI account that can be opened by depositing foreign currency in the account. (NRO/NRE/FCNR)
9. The Smithsonian agreement was abandoned in March _____. (1978/1972/1971)
10. Dealing Room Manual and code of conduct for dealers is given by _____. (FEDAI/FIMMDA/Both)

B State True or False (Any 7)

(7)

1. Euro currency market is highly regulated.
2. In case of NRO account, only current earnings are repatriable.
3. Full fledged money changers are authorised to undertake both purchase and sale transactions with the public.
4. Mining is a process of recording of transactions through the utilization of processing power computer.
5. The EMS was no longer a functional arrangement from May 1998.
6. Credit risk refers to the risk that a government may default on its obligation.
7. Offshore banking formally started in India from 2002.
8. Asymmetric information occurs in a situation where both party in a transaction has similar information.
9. US dollar can be described as "Paper Gold".
10. FERA came into force when the foreign exchange reserve position in the country wasn't good.

- Q.2 A What is Capital Account Convertibility? Explain its advantages and disadvantages. (8)
- B What is ADR? Explain different types of ADR. (7)
- OR
- Q.2 C Differentiate between fixed exchange rate system and flexible exchange rate system. (8)
- D What do you mean by FDI? What are its advantages? (7)
- Q.3 A Write briefly about the International payment systems. (8)
- B What is offshore banking? What are its advantages and disadvantages? (7)
- OR
- Q.3 C What are the factors responsible for growth of Euro-currency Market? (8)
- D Explain the role of LIBOR in international lending. (7)
- Q.4 A Explain risk management. What are the risks faced by companies? (8)
- B Write in detail about participatory notes. (7)
- OR
- Q.4 C Calculate the rate of following currencies against Indian Rupees (8)

	BID	OFFER
1 USD INR	69.1300	69.1600
1 GBP USD	1.2410	1.2620
1 SGD USD	1.3656	1.3844
1 USD EUR	0.8946	0.9156
1 USD THB	31.3450	31.3650

- D Calculate mid rate, inverse quote and spread with following quote (7)
- USD 1 = GBP 0.8120/40
- Q.5 A What is hedging? What are the internal and external methods of hedging? (8)
- B What are Eurobonds? Explain different types of Eurobond? (7)
- OR
- Q.5 Write Shortnotes On (Any 3) (15)
1. Cryptocurrency
 2. Basel norms.
 3. Features of Bretton Woods Agreement
 4. Indian Depository Receipts
 5. FEMA

Marks: 75

Duration: 2.5 Hours

Q.1 A) Match the pairs:

Any 8

8

	Column A		Column B
1.	Null Hypothesis	a)	First page of research proposal
2.	Correlation	b)	Supplementary Material
3.	Tabulation of data	c)	Primary data
4.	Title	d)	Non-Probability Sampling
5.	Survey	e)	Ho
6.	Alternate hypothesis	f)	Ranges between -1 & +1
7.	Appendices	g)	Secondary Data
8.	Journals	h)	Blueprint of research work
9.	Judgment Sampling	i)	Sorting and counting of data
10.	Research Design	j)	H1

Q.1 B) State TRUE or FALSE: Any 7

7

1. Formulation of hypothesis is a last stage in research.
2. Analysis of data refers to drawing of conclusions from data.
3. Editing helps the researcher to arrange data in statistical tables and graphs.
4. Correlation analysis is a technique that requires a large number of lady respondents.
5. Scientific research is a type of applied research.
6. Hypothesis must be based on objectives of research.
7. Pure research is also called as Basic research.
8. Questionnaire ideally can be a combination of open and close ended questions.
9. Report writing is the last activity of the research process.
10. Research abstract is a summary of technical report.

Q. 2 (A) What is research? State the types of research.

8

Q. 2 (B) Describe with suitable examples the methods of probability sampling.

7

OR

Q. 2 (C) What is research design? State the types of research design.

8

Q. 2 (D) What is hypothesis? Explain the sources of hypothesis used by researcher.

7

Q. 3 (A) What is personal interview? Explain the types of personal interview used by researcher.

8

Q. 3 (B) What is secondary data? State and explain the sources of secondary data? **7**

OR

Q. 3 (C) Discuss the 'Discriminant Analysis' as advanced statistical technique used in research. **8**

Q. 3 (D) Explain editing of data with its types. **7**

Q. 4 (A) What is concept of analysis of data? Discuss types of analysis of data. **8**

Q.4 (B) Describe tabulation and various types of tabulation **7**

OR

Q. 4 (C) What do you mean by interpretation of data. State its importance to researcher **8**

Q. 4 (D) Discuss footnotes and bibliography used in research. **7**

Q. 5 (A) Discuss the contents of a research report. **8**

Q.5 (B) Explain the role of review of literature in research? **7**

OR

Q. 5 Short notes on: (ANY 3) **15**

- i. Characteristics of research
- ii. Factor Analysis
- iii. ANOVA
- iv. Popular Report
- v. Social media and media listening

(2½ Hours)

[Total Marks: 75]

Q.1 A) State whether following statements are True or False (any eight) 08

1. Diversification means broadcasting or enlarging the company's product range by introducing new products by extending the range of existing products.
2. No change strategy is a type of stability strategy.
3. Market development concentrates on gaining additional shares of firms existing markets using the existing product.
4. Concentration strategies have high initial risk.
5. Organizational structure is the pattern in which the various parts of the organization are interrelated.
6. The changes in the rules brought by the government can have a deep impact on the business.
7. The political system can have an impact on the taxation system of the country.
8. The factors of environment influence business decisions.
9. The barriers to strategy implementation can either be by internal or external sources within an organization.
10. The last action that is required for putting a strategy into operation is its institutionalization.

B) Match the column (any seven) 07

Group 'A'	Group 'B'
1. Process benchmarking	a. Within the same organization
2. Contemporary control system	b. Performance metrics
3. Strategic benchmarking	c. Functional task
4. International benchmarking	d. Continuous monitoring
5. Organizational culture	e. Globalization
6. Internal benchmarking	f. Shared values
7. Performance benchmarking	g. Comparison of organizational performance with others in the similar industry
8. Traditional control system	h. Sub unit of an organization
9. External benchmarking	i. Core competencies
10. Responsibility centre	j. Feedback approach

- Q.2 A) Explain the different levels of strategy **08**
B) Explain the GE planning grid in detail. **07**

OR

- C) Explain the importance of strategic management in organizations. **08**
D) Discuss the principles of good strategy. **07**

- Q.3 A) Explain the need and importance of environment scanning. **08**
B) Discuss the impact of legal factors in strategic management. **07**

OR

- C) Discuss briefly the process of strategic choice. **08**
D) Explain the components of micro environment of business. **07**

- Q.4 A) Explain the advantages and limitations of internationalization. **08**
B) What do you mean by Integration? Discuss the features. **07**

OR

- C) Discuss the advantages and limitations of concentration strategies. **08**
D) Discuss the types of corporate level strategies. **07**

- Q.5 A) Explain the advantages and limitations of Gap analysis. **08**
B) Explain the types of benchmarking. **07**

OR

Write short notes (any three) 15

1. Types of strategic control
2. Matrix structure
3. Barriers to strategy Evaluation
4. Role of strategic leader.
5. Digitalization strategies

Time 2 ½ Hours

Marks: 75

Please check whether you have got the right question paper.

Note:

- All questions are compulsory.
- Figures to the right indicate full marks.

Q1 A Fill in the blanks. (Any 8)

[8]

1. EOL stands for _____.
 - a. Expected opportunity loss
 - b. Expected objective loss
 - c. Expected occupancy loss
 - d. None of these
2. The expected value of a random variable is the _____.
 - a. Value that has the highest probability of occurring
 - b. Mean value over an infinite number of observations of the variable
 - c. Largest value that will ever occur
 - d. Most common value over an infinite number of observations of the variable
3. Profit made by an investor in a day is an example of
 - a. Continuous variable
 - b. Discrete variable
 - c. Absolute variable
 - d. None of these
4. Number of distinct ways to arrange the letters of the word ACTUARY are _____.
 - a. 5520
 - b. 2250
 - c. 5250
 - d. 2520
5. _____ rate charged reflects the market rate of interest for the maturity of the loan.
 - a. Variable
 - b. Floating
 - c. Fixed
 - d. Interest

6. Variable rate loan is also referred to as a _____ loan.
 - a. Floating rate
 - b. Fixed rate
 - c. Both a & b
 - d. None of the above

7. A major focus of actuarial science is the quantification of _____.
 - a. Risk
 - b. Return
 - c. Both a & b
 - d. None of the above

8. Variance of Binomial (n,p) random variable is equal to _____.
 - a. $np(1-p)$
 - b. $np(1+p)$
 - c. $n-p(1-p)$
 - d. $n+p(1+p)$

9. Life table can be used to calculate probabilities of _____.
 - a. Survival
 - b. Death
 - c. Both a & b
 - d. None of these

10. During Decision making, decision maker is always aware the all possible _____.
 - a. Demand situations
 - b. Strategy
 - c. Revenue
 - d. None of these

Q1 B State whether the statements are true or false. (Any 7)

[7]

1. In Decision making under risk problems probability information is always available.
2. The Stochastic modal predict the outcome of a single experiment prior to its being carried out.
3. Investors can use the Central Limit Theorem to simplify the analysis of stock returns.
4. The valuation of contingent cash flows is not a major application in actuarial science of financial and insurance mathematics.
5. The interest rates vary with the term or tenor of the loan.
6. Type I error is committed when our hypothesis is true but our test rejected.

7. EMV is the only tool to calculate best decision among the available alternatives.
8. In Binomial distribution the experiment consist of infinite number of trials.
9. Largest sample theory is applicable when n is less than 30.
10. For life insurance key risk factors are age and sex.

Q2 A The average claims cost for two different insurance Classes in a year depend on whether the economy is booming, normal or in a recession. [15]
 The following table gives the average claims cost for these Classes in each state of the economy along with the probability that the economy will be in the state.

State	Probability of State	Average Claims Cost A	Average Claims Cost B
Boom	0.1	1,500	500
Normal	0.6	1,000	1,000
Recession	0.3	500	1,500

The probability is the probability that the average cost will equal the values shown in the corresponding row.

Calculate the expected value and variance for each insurance class.

OR

Q2 B Explain the concept of Discrete and Continuous Random Variable and give examples of both in actuarial science. [15]

Q3 A Explain the basic Principles of Actuarial Modelling. [7]

B How would you adjust the mortality rates include a risk loading when calculating the value for a life annuity product? Comment on the difference between this case and the term life insurance case. [8]

OR

Q3 C Calculate the annual effective rate corresponding to 6% p.a. normal assuming a compounding frequency of monthly and semi-annual. [8]

D Salar deposits Rs. 2, 00,000 annually in a bank for 7 years. The deposit earns 15% interest per year. What is the future value of this annuity at the end of 7 years? [7]

- Q4 A** You have a choice of investing Rs. 10,000 in two potential investments. [15]
 You must invest in one or the other. The pay-off from the investments are as follows:

Outcome	Probability	Investment A	Investment B
Good	0.10	50,000	26,000
Middle	0.88	12,500	15,000
Bad	0.02	0	10,000

Which investment would you select?

OR

- Q4 B** Describe the properties of the statistical distributions which are suitable for modelling individual and aggregate losses. [15]

- Q5 A** The random sample of 100 articles selected from a batch of 2000 articles shows the average diameter of the articles is 0.354 with standard deviation 0.048. Find 95% confidence interval for the average whole batch. [8]

- B** Derive maximum likelihood estimators for transition intensities. [7]

OR

- C** Write a short note: (Any 3) [15]

1. Central Limit Theorem
2. Binomial model of Mortality
3. Markov process
4. Process of Graduation
5. Types of Decision Criteria
