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**II Semester M.Com. Degree Examination, November - 2022**

**COMMERCE**

**Risk Management and Derivatives**

**(CBCS New Scheme)**

**Paper : 2.2**

**Time : 3 Hours**

**Maximum Marks : 70**

**SECTION - A**

**Answer any Seven Questions out of Ten. Each question carries Two marks. (7×2=14)**

1. a) What is Perils under Risk?
- b) Mention the components of Credit risk.
- c) List out few risk management practices followed by Insurance Companies.
- d) Give the meaning of stress Testing.
- e) What do you mean by Derivatives?
- f) Give the meaning of Mark to Market.
- g) What do you mean by Speculator in Derivatives Market?
- h) Give the meaning of Forward contract.
- i) Write any two differences between American and European Option.
- j) What is off Balance sheet Risk?

**SECTION - B**

**Answer any Four Questions out of Six. Each Question Carries Five Marks.**

**(4×5=20)**

2. Explain the challenges faced by the Business due to risk.
3. What is Yield Curve? Explain the types of Yield Curve.
4. What are the factors contributing to the growth of Derivatives Market in India?
5. Explain KMV model of Credit Risk.
6. If one day VaR of a Portfolio is Rs. 100000 with at 90% , 95% and 99% confidence level. In a period of 1 year of 280 trading days, how many times the loss on the portfolio may exceed Rs. 100000.

**[P.T.O.]**





7. Consider a 6 month future contract on 100 shares with a price of Rs 40. The risk free rate (Continuously compounded) is 10% p.a. Calculate the value of the future Contract.

### SECTION - C

Answer any Two Questions out of Four. Each question carries Twelve Marks.

(2×12=24)

8. Explain the Classification of Risk and steps in Risk Management.
9. The Stock Price 6 months from the expiration of an option is Rs. 84, the exercise price of the option is Rs. 80, risk free interest rate is 11% per annum and the volatility is 22% per annum. Calculate the value of Call Option, Put Option and Break Even using Black-Scholes Option Pricing Model.
10. Explain the following ,
- Credit risk mechanism of CIBIL.
  - Operations Risk
  - Margin and Its types.
11. Define Derivatives. Explain the types of Derivatives Instruments in detail.

### SECTION - D

Answer the following Question (Compulsory question)

(1×12=12)

12. Mr. Z wants to make an Investment in ABC Company Limited. Suggest Mr. Z regarding the Investment using Altman Z Score Model. The details of company ABC are follows,

Particulars	Amount in Lakhs (Rs.)
<b>Assets</b>	
Current Assets	60
Non-Current Assets	80
<b>Total Assets</b>	<b>140</b>
<b>Equity And Liabilities</b>	
Equity	65
Current Liabilities	35
Other Liabilities	40
<b>Total Liabilities</b>	<b>140</b>





(3)

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- a) Earnings before Interest and Tax are Rs. 50 Lakh and Earnings after Tax is Rs. 35 Lakh.
  - b) Company Dividend Payout Ratio is 70% and The Company is maintaining Remaining 30% as a Retained Earnings. Earnings available for Equity Shareholders are Rs. 20 lakh.
  - c) The Company Made Rs. 30 Lakh Sales During the year.
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**II Semester M.Com. Degree Examination, October - 2023****COMMERCE****Risk Management and Derivatives****(CBCS Scheme)****Paper : 2.2****Time : 3 Hours****Maximum Marks : 70****SECTION - A****Answer any Seven questions. Each question carries 2 marks. (7×2=14)**

1. a) What do you understand by Unsystematic Risk?
- b) What do you understand by 'Liquidity Risk'?
- c) Mention any 2 sources of Credit Risk
- d) Define VaR
- e) What do you understand by Re-Pricing risk?
- f) Write the meaning of Monte Carlo Simulation
- g) Write two characteristic features of Derivatives
- h) What is Forward Contract?
- i) What is Initial Margin ?
- j) What is Cost of Carry?

**SECTION - B****Answer any Four questions. Each question carries 5 marks. (4×5=20)**

2. Explain the factors due to which Systematic Risk arises in an organization
3. Given the value of a portfolio Rs 4,00,000 and standard deviation is 12% pa. calculate 1 day VaR and 10 days VaR at 99% confidence levels (Table Value of Z=2.58)
4. Explain briefly the different types of Yield Curves

**[P.T.O.]**





5. A person has invested Rs 1,00,000 each in the following securities and probable returns are as follows

Cash Flow	Year 1(Rs)	Year 2(Rs)	Year 3(Rs)	Year 4(Rs)	Year 5(Rs)	Total
Investment 1	8,000	8,000	8,000	8,000	8,000	40,000
Investment 2	5,000	7,000	14,000	6,000	12,000	44,000

Ignoring time value of money calculate ROI on investments and hence calculate RAROC and identify which project is more risky.

6. Bring out differences between Forward and Future Contracts
7. Explain the features of 'Options' Contract

### SECTION -C

Answer any Two questions. Each question carries 12 marks.

(2×12=24)

8. The extracts of balance sheet as on 31<sup>st</sup> March 2021 is as follows.

Liabilities	Rs	Assets	Rs
Equity share capital			
(Shares Rs 100 each)	4,00,000	Fixed Assets	10,00,000
Reserves and Surplus	2,25,000	Trade investments	2,00,000
12% Debentures	3,00,000	Inventory	1,25,000
10% Bank Loan	2,00,000	Accounts Receivables	75,000
Current Liabilities	3,00,000	Preliminary Expenses	25,000
	<b>14,25,000</b>		<b>14,25,000</b>

### Additional information

- a) Net sales amounted to Rs 20,00,000
- b) Price earning ratio 10
- c) Dividend pay out ratio = 50%





- d) Dividend per share Rs 20
- e) Corporate tax = 50%

Calculate Altman's Z score and interpret your answer

9. Explain the sources or factors of Operations Risk

10. Consider the following data

Current market price of canara bank share Rs 2500, Strike Price in the options contract Rs. 510, period of options contract 1 year. , expected risk free rate 10% pa , type of option-call, price on maturity upper price Rs 600, down price Rs 400. Calculate the value of option as per binomial model under risk neutral probability

11. Write short notes on

- a) KMV model of Credit Risk Management
- b) CIBIL Score

#### SECTION -D (Compulsory)

Answer the following question which carries 12 marks

(1×12=12)

12. "Drastic improvements has taken place in Indian Derivative markets during the last 2 decades and today Indian Derivatives Market is one of the most established and trustable markets" Elucidate with necessary in insights.

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