## II Semester M.Com. Degree Examination, June 2015 (CBCS) COMMERCE

Paper - 2.2 : Risk Management

Time: 3 Hours

Max. Marks: 70

### SECTION - A

Answer any seven questions out of ten. Each question carries two marks.  $(7 \times 2 = 14)$ 

- 1. a) What is Risk Management?
  - b) What do you understand by residual risk financing?
  - c) What do you mean by transaction exposure?
  - d) What is Risk Mapping?
  - e) What do you mean by Concentration Risk?
  - f) What do you mean by "on the run" risk management in operations?
  - g) Differentiate between risk and uncertainty.
  - h) What is Stress Testing?
  - i) What is Delphi technique?
  - j) What do you mean by Intangible Hazards?
  - k) What are Credit Default Swaps?
  - I) What are American Options?

### SECTION-B

Answer any four questions out of six. Each question carries five marks.

 $(4 \times 5 = 20)$ 

- 2. What are the main types of financial guarantees offered by ECGC?
- 3. Explain in detail about the measures associated in risk determination.
- 4. State the different types of Yield Curves.

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- 5. How does Monte Carlo Simulation Model help risk manager to hedge risks?
- 6. Failure to protect and manage the risk has serious consequences in the organizational performance. Substantiate.
- 7. "Everything flows and nothing stays... you can't step twice into the same river"Narrate Heraclitus Statement relating to ORM.

### SECTION - C

Answer any three questions out of five. Each question carries twelve marks.

 $(3 \times 12 = 36)$ 

- 8. Explain the Process of Risk Management in detail.
- 9. What is Altman's Z-Score Management Model? Explain original Z-score variable weighting component for:
  - a) Public Firms and Private Firms
  - b) Non-Manufactures and Emerging Markets.

Measure the "Financial Fitness" of PQR Public Bank using Altman Z-Score Model from the following information :

Particulars	Amount
Earnings Before Interest and Taxes	16,000
Total Assets	2,33,500
Net Sales	40,000
Total Liabilities	2,33,500
Retained Earnings	23,500
Market Value of Equity	39,000
Current Assets	95,000
Current Liabilities	96,000



- 10. Answer the following sub questions:
  - a) What do you mean by Optimum Portfolio as per Harry Markowitz Optimum Portfolio Theory? How diversification does help an investor to hedge the risk?
  - b) The returns of two assets under four possible states of nature are given below:

State of Nature	Probability	Return of Asset I	Return of Asset II
Α	0.10	5%	0%
В	0.30	10%	8%
C	0.50	15%	18%
D	0.10	20%	26%

Calculate expected return and standards deviation on Asset I, II and Portfolio.

- 11. What is VaR Measure? Explain the different approaches for computing VaR Measure.
- 12. Explain the following concepts in detail:
  - a) Cost of Carry Model
  - b) Black-Scholes Option Pricing Model



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Time: 3 Hours

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### SECTION - A

- 1. Answer any seven questions out of ten. Each question carries two marks. (7×2=14)
  - a) What do you mean by Risk Management?
  - b) Define Uncertainty.
  - c) What do you mean by an Undesirable Event?
  - d) What is Retrospective Risk?
  - e) What is Back-to-Back loan in Derivative Market?
  - f) What is Pay-Off in futures contracts?
  - g) What do you mean by Restricted Cover in ECGC?
  - h) Differentiate between Commodity Futures and Financial Futures.
  - i) What do you mean by Stress Testing?
  - j) State any two forms of credit risk.

### SECTION-B

Answer any four questions out of six. Each question carries five marks. (4x5=20)

- 2. What are the features of Financial Asset Exposure?
- 3. Explain the importance of LIBOR and MIBOR in Swap Contracts.
- 4. What are Credit Risk Derivative Instruments? Explain its types.
- 5. Explain the concept of 5M model in detail.



- Consider a 6 months Forward Contract on 100 shares with a price of Rs. 50 each.
   The Risk-free rate of interest (continuously compounded) is 12% per annum.
   The share is expected yield a return (dividend) of Rs. 2.50 in 4 months from now. Determine the value of the Forward Contract.
- 7. A US based company that exports goods to Switzerland and expects to receive payment or a shipment of goods in two months. Because the payment will be in Swiss-Francs, the exporter wants to hedge against a decline in the value of the Swiss franc over the next two months. The risk free rate in US 2 percent and 5 percent in Swiss. Assume that interest rates are expected to remain fixed over the next six months. The current spot rate is \$0.5984. State whether the US company should use a long or short forward contract to hedge currency risk.

### SECTION-C

Answer any three questions out of five. Each question carries twelve marks. (3×12=36)

- 8. In terms of the Harry Markowitz Portfolio Model, explain how an investor identifies his/her optimal portfolio. What specific information does an investor need to identify to arrive at optimal portfolio?
- 9. Briefly explain the Risk Modeling Methods adopted in ORM.
- 10. Reliance has a market price of Rs. 900. The volatility on the share is 0.34; the risk-free interest rate is 6%. What would be the price of the call with a strike price of Rs. 950, if the expiry date were 18 days ahead and assume there is no dividend announcement so far. Calculate the Price of Call Option using Black-Scholes Model.
- 11. What is Altman's Z Score Management Model? Measure the "Financial Fitness" of ABC Private Bank using Altman Z-Score Model from the following information:

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Particulars	Amount
Share capital	1,00,000
Market value of equity	44,000
Total Book Value of Assets	2,33,500
Total Book Value of Liabilities	2,33,500
Current Year Profit	27,500



Sales for the year	40,000
Earnings after interest and taxes	75,000
Tax @ 30%	13,000
Interest	15,000
Reserves and Surplus	33,000
Creditors	13,800
Working Capital	24,000

12. You plan to visit Geneva, Switzerland in three months to attend an international business conference. You expect to incur the total cost of SF 10,000 for lodging, meals and transportation during your stay. As of today, the spot exchange rate is \$0.60/SF and the three month forward rate is \$0.63/SF. You can buy the three month call option on SF with the exercise rate of \$0.64/SF for the premium of \$0.05 per SF.

Assume that your expected futures spot exchange rate is the same as the forward rate. The three-month interest rate is 6% P.A. in the united states and 4% in Switzerland.

- Calculate your expected dollar cost of buying SF 10,000 if you choose to hedge via call option on SF.
- Calculate the future dollar cost of meeting this SF obligation if you decide to hedge using a forward contract.
- 3) At what future spot exchange rate will you be indifferent between the forward and option market hedges?
- Illustrate the future dollar costs of meeting the SF payable against the future spot exchange rate under both the options and forward market hedges.