

<b>PIUI8009</b>	<b>Risk Management &amp; Insurance</b>	L	T	P	C
<b>Version 1.0</b>		3	0	0	3
<b>Pre-requisites/Exposure</b>	Basic Knowledge of Financial Management concepts (FINC 7001)				
<b>Co-requisites</b>	Knowledge of classification of data, data presentation				

**Document Creation Date 20-12-2017 – MMBCF-Version 1.0**

## Course Objectives

1. To understand the nature of different types of risks in business organisation
2. To understand the working of foreign exchange market & risk mitigation techniques of foreign exchange exposure
3. To understand the financial risk and tools for mitigation of financial risk
4. To Develop strategies and plans for lasting risk management strategies

## Course Outcomes

On completion of this course, the students will be able to

- CO1. Students will demonstrate a clear understanding of the concepts related to Risk & Risk Management.
- CO2. Students will be able to take appropriate risk management decisions for the firm.
- CO3. Students will understand current business environment for the firm for taking effective decisions.
- CO4. Students will be able to analyze the different risks associated with the business

## Catalog Description

The goal of this course is to engage students in active discovery of risk management principles. Students will be prepared to function in a business environment, developing an awareness of the challenges, the tools, and the process of designing and implementing a risk management program. This course focuses on the ways in which businesses and society assess, control, and transfer risk. This process, known as the risk management process, is becoming an increasingly important tool in the management of business and personal financial health. An effective and efficient corporate risk management program leads to knowledge and control of costs and an improved bottom line. The risk management process involves identification of risks and associated potential costs, analysis of the causes of risk of financial loss, determination of various strategies to treat risk, selection of strategies appropriate to the goals and objectives of the business, implementation of the selected strategies, management and monitoring of results. Making adjustments, adapting to external and internal forces and crisis or disaster management are incorporated in the corporate risk management process. An effective risk management program will reduce losses, and improve financial performance and employee morale.

Classroom activities including lectures, discussions and case studies (topped up with role-play) will be designed to encourage students to get involved, absorb and assimilate inputs. These activities will also be supplemented by group discussions, cooperative group solving problems, live projects, analysis of video cases and debates.

Class participation is a fundamental aspect of this course. Students will be encouraged to actively take part in all group activities and to give an oral group presentation. Students will be expected to interact with media resources, such as, web sites, videos, DVDs, and newspapers etc.

## Course Content

---

### UNIT – I

#### 8 Lecture Hours

Enterprise Risk Management : Meaning of ERM , Source of risk to an Enterprise, Pure risk, Speculative risk , Strategic risk , Operational risk, Market risk, Credit risk.

Risk management models, integrated risk assessment, Frontiers of ERM, Role of Chief Officer, and Prerequisite for ERM.

### UNIT – II

#### 10 Lecture Hours

Corporate Exposure Management Policy, Introduction to Risk Models, Forwards, Non-deliverable Forwards, Futures, Options; Interest Rate Risk, Financial Swaps: Currency Swaps, Hedging exchange rate risk using currency swaps, Interest Rate Swaps, Need for Swaps Intermediary.

### UNIT – III

#### 10 Lecture Hours

Modelling Risk Factors, Component Of Risk Measurement Systems, Managing Linear Risk-Unitary Hedging, Basis Risk, Optimal Hedging And Optimal Hedge Ratio, Duration Hedging, Beta Hedging Nonlinear Risk Models- Option Pricing, Option Greeks, Option Sensitivities

### UNIT – IV

#### 8 Lecture Hours

Insurance- Definition, Purpose & need of Insurance, Insurance as risk transfer & risk sharing mechanism, Benefits & Cost of insurance to society, Types of insurance business. Insurance as contract- Essential elements, Fundamental principles of insurance- Utmost good faith, Insurable Interest, Indemnity & its corollaries, Proximate cause, Co-insurance, Condition of Average.

#### Text Books

1. Derivatives & Risk Management, Rajiv Srivastava, Oxford Publications
2. Risk Management & Insurance, Harrington, McGraw Hill Education
3. Multinational Business Finance, David K. Eiteman, Pearson

#### Reference Books

1. Financial Risk Manager Handbook, Philippe Jorion, Wiley Publications

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination Examination Scheme:**

Components	MSE I	MSE II	Presentation/Assignment/ etc	ESE
Weightage (%)	10	10	20	60

#### ASSESSMENT TOOLS:

CO 1	CO2	CO3	CO4
Discussion Assignment and Case Let Analysis	Discussion Assignment, Quiz and Case Let Analysis	Case Analysis, Project Analysis, Video Analysis Presentation	Case Analysis, Project Analysis, Video Analysis Presentation

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Demonstrate the applicability of the concept of Tariff Assessment and cost to Understand the Managerial Decisions and cost sheet	PO1, PO2, PO8
CO2	Apply the Cost and Risk Analysis associate with Financing Data of Power Projects in the Organization	PO7, PO8, PO3, PO13
CO3	Analyse the complexities associated with management of cost of power projects in the Organization	P14, PO4, PO12
CO4	Demonstrate how the concepts of costing could integrate while identification and resolution of problems pertaining to solar power, wind power, thermal power projects	PO8, PO13, PO6, PO11

### Relationship between the Course Outcomes (COs) and Program Outcomes (POs)

Course Code	Risk Managementg & Insurance	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
MBCF 771		2	3	2	3	2	3	2	3	3	2	1	2	3	3
	CO1	2	2	2	3	2	1	3	2	4	2	3	3	3	4
	CO2	2	2	1	3	3	2	3	3	3	3	2	2	2	3
	CO3	2	3	4	1	3	2	3	3	2	2	3	2	3	2

## Model Question Paper

<b>Name:</b>  <b>Enrolment No:</b>	
--	--

**Course: PIUI8009– Risk Management & Insurance**  
**Programme: MBA Urban Infrastructure Development /MBA PM**  
**Semester: ODD- 2017-18**  
**Time: 03 hrs.**  
**Max. Marks: 100**

**Instructions:**

Attempt all questions from **Section A** (each carrying 2 marks); all Questions from **Section B** (each carrying 5marks); all questions from **Section C** (each carrying 10 marks); all questions from **Section D** ( each carrying 30 marks)

**SECTION A (Attempt all questions)**

1.	Futures contracts are attractive for market participants as compared to OTC contracts because futures contracts have _____.	[2]	<b>CO3</b>
2.	standalone risk and portfolio risk	[2]	<b>CO1</b>
3.	An Indian refiner enters into a contract to export 1000 barrels of oil with payment to be received in US Dollar (USD) in next three months. His risk is...	[2]	<b>CO4</b>
4.	difference between Uncertainty and Risk	[2]	<b>CO1</b>
5.	risk register	[2]	<b>CO1</b>
6.	Hedging	[2]	<b>CO4</b>
7.	difference between exchange traded and over-the-counter derivatives	[2]	<b>CO2</b>
8.	Risk is defined as	[2]	<b>CO4</b>
9.	No of units of domestic currency required to buy one unit of a foreign currency is known as:	[2]	<b>CO3</b>
10.	Spot exchange rate is the rate of exchange between two currencies for	[2]	<b>CO1</b>

**SECTION B (Attempt all questions)**

21.	The following table, gives the rate of return on stock of Apple Computers and on the market portfolio for five years  <table style="width: 100%; border-collapse: collapse; margin-left: 20px;"> <thead> <tr> <th style="text-align: left;"><i>Year</i></th> <th style="text-align: center;"><i>Return on the stock</i></th> <th style="text-align: center;"><i>Return</i></th> </tr> <tr> <td></td> <th style="text-align: center;"><i>Apple Computers (%)</i></th> <th style="text-align: center;"><i>Market Portfolio (%)</i></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">-13</td> <td style="text-align: center;">-3</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">5</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">15</td> <td style="text-align: center;">8</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">27</td> <td style="text-align: center;">12</td> </tr> </tbody> </table>	<i>Year</i>	<i>Return on the stock</i>	<i>Return</i>		<i>Apple Computers (%)</i>	<i>Market Portfolio (%)</i>	1	-13	-3	2	5	2	3	15	8	4	27	12	[5]	<b>CO1</b>
<i>Year</i>	<i>Return on the stock</i>	<i>Return</i>																			
	<i>Apple Computers (%)</i>	<i>Market Portfolio (%)</i>																			
1	-13	-3																			
2	5	2																			
3	15	8																			
4	27	12																			

	5	10	7											
	What is the market risk (beta) of the stock of Apple Computers?													
22.	What are the various kinds of business risks			[5]	CO4									
23.	What are the attributes of ideal currency system?			[5]	CO2									
24.	Explain hedging of fixed rate and floating rate loans using swap			[5]	CO2									
<b>SECTION C ( Attempt all questions)</b>														
25.	<p>. Company P and Company Q have equal requirement of funds of Rs 50 crore each. They have been offered following rates in the fixed and floating rate markets for debt</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 35%; text-align: center;">Fixed Rate</td> <td style="width: 35%; text-align: center;">Floating Rate</td> </tr> <tr> <td>Company P</td> <td style="text-align: center;">9%</td> <td style="text-align: center;">MIBOR+100bps</td> </tr> <tr> <td>Company Q</td> <td style="text-align: center;">11.5%</td> <td style="text-align: center;">MIBOR+200bps</td> </tr> </table> <p>Company P wants funds at floating rate while Company Q is happy to raise funds at fixed rate basis. Depict a swap sharing the gains of swap equally and find out the cost of funds for Company P and Company Q. What would be the saving in financing cost of each firm?</p>				Fixed Rate	Floating Rate	Company P	9%	MIBOR+100bps	Company Q	11.5%	MIBOR+200bps	[10]	CO4
	Fixed Rate	Floating Rate												
Company P	9%	MIBOR+100bps												
Company Q	11.5%	MIBOR+200bps												
26.	What is Enterprise Risk management? Discuss the process of Enterprise risk management.			[10]	CO2									
27.	<p>Given the following information about an asset:</p> <p style="text-align: center;">Current Market Price: Rs 50, Annual Volatility: 30%, Risk Free Interest Rate for 3months: 10%</p> <p>Find out the value of 3-month call option with strike prices of (a) Rs 40; (b) Rs 50 and (c) Rs 60. What are the intrinsic and time value of the calls?</p>			[10]	CO3									
<b>SECTION D(Attempt all questions)</b>														
28.	<p>Read the case and answer the following questions</p> <p>Dinesh Associates is considering an investment project which has an estimated life of four years. The cost of project is 400,000 and the possible cash flows are given below:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;"><i>Year 1</i></td> <td style="width: 25%; text-align: center;"><i>Year 2</i></td> <td style="width: 25%; text-align: center;"><i>Year 3</i></td> <td style="width: 25%; text-align: center;"><i>Year 4</i></td> </tr> <tr> <td style="text-align: center;"><i>Cash Flow Prob.</i></td> <td style="text-align: center;"><i>Cash Flow Prob.</i></td> <td style="text-align: center;"><i>Cash Flow Prob.</i></td> <td style="text-align: center;"><i>Cash Flow Prob.</i></td> </tr> </table>			<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Cash Flow Prob.</i>	<i>Cash Flow Prob.</i>	<i>Cash Flow Prob.</i>	<i>Cash Flow Prob.</i>	[30]	CO3, CO4	
<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>											
<i>Cash Flow Prob.</i>	<i>Cash Flow Prob.</i>	<i>Cash Flow Prob.</i>	<i>Cash Flow Prob.</i>											

110,000	0.3	120,000	0.5	130,000	0.2	110,000	0.4		
120,000	0.4	130,000	0.3	140,000	0.3	120,000	0.4		
130,000	0.3	140,000	0.2	150,000	0.5	130,000	0.2		
<p>The cash flows of various years are independent and the risk-free discount rate is 8 percent.</p> <p>(a) What is the expected NPV ?</p> <p>(b) If the NPV is approximately normally distributed, what is the probability that the NPV will be zero or less ?</p>									