

PGDM-IBM, 2017-19

Sub.: Advanced Risk Management (Elective)

Paper Code: INS-404B

Trimester-IV, End Term Examinations: September-2018

Time Allowed : 2½ hrs.

Roll No.: \_\_\_\_\_

Marks: 50

**Instruction:** Students are required to write Roll No. On every page of the question paper, writing anything except the Roll No will be treated as **Unfair Means**. All other instructions on the reverse of Admit Card should be followed meticulously.

Sections	No. Of Questions to attempt	Marks	Marks
A	3 out of 5 (Short Questions)	5 marks each	3*5 = 15
B	2 out of 3 (Long Questions)	10 marks each	2*10 = 20
C	Compulsory Case Study	15 marks	15

**Section-A**

- A1. Discuss the FIRM risk score card as a risk classification tool according to their impact, on four important variables.
- A2. Describe the risk response option in term of 4Ts and explain how these can be shown on a risk matrix.
- A3. How does securitisation of risk increase the capacity in the property and casualty insurance industry?
- A4. Write short notes on market risk, liquidity risk, credit risk and operational risk?
- A5. A stock has a beta of 0.75 and an expected return of 13.0%. The risk free rate is 4.0%. Calculate the market risk premium and the expected return on the market portfolio.

**Section-B**

- B1. You are the risk manager of a large financial organisation. In view of the recent cyber-attacks on other organisations, the Board has asked you to report to them on Technology and "Cyber Risks".
- (a) Explain, with justification, three significant threats of technology and cyber risks to the organisation.
- (b) Describe how the organisation could protect itself from the three significant threats identified in part (a) above.
- B2. A risk manager self- insured a property risk for one year. In the following year, even though no losses had occurred, the risk manager purchased property insurance to address the risk. What is the best explanation for the change in how the risk was handled even though no losses had occurred?
- B3. Using the information below, calculate the expected return and standard derivative of the two-asset portfolio.

### Characteristic of a two-stock portfolio

	Stock A		Stock B
Amount invested	\$40000		\$60,000
Expected Return	11%		25%
Standard Deviation	15%		20%
Correlation coefficient		0.30	

### Section-C

#### Case Study Compulsory:- Risk assessment for contract bricklayers

##### About the Company:

The manager of a successful bricklaying contractor, with help from worker representatives, carried out a general risk assessment that covered their typical work. This assessment was used when tendering for contracts to demonstrate the firm's approach to health and safety. In the tender documents the manager was clear about what was needed from the principal contractor to do the job safely and properly. The firm won a bricklaying contract for a development of three-storey flats. Work was due to start on 1 May 2006. The manager checked the construction phase plan and met the principal contractor's site manager on the site. This extra information was used to amend the general assessment so that it was specific to the work and conditions.

##### How was the risk assessment done?

1. To identify the hazards, the manager:
  - checked the manufacturers' instructions for tools/ machinery and the data sheet for mortar;
  - thought about the work seen on sites; and
  - talked to employees to help identify the significant hazards and particular work practices.
2. The manager then wrote down who could be harmed by the hazards and how.
3. For each hazard identified, the manager recorded what controls, if any, were in place to manage these hazards. Where existing controls did not meet good practice the manager wrote down what further actions were needed to manage the risk.
4. Putting the findings of the risk assessment into practice, the manager decided and recorded who was responsible for implementing the further actions and when they should be done. When each action was completed it was ticked off and the date was recorded.
5. The manager decided that for each new site it was important to make sure the assessment was suitable and amend it depending on the particular work and conditions. A review and update of the general risk assessment would be made each year and staff would learn from the work on different sites.

**How was the site-specific risk assessment done?**

1 To turn the general risk assessment into a site-specific assessment the manager checked the following had been identified: ■ the right hazards; ■ who might be harmed and how; ■ controls that would need to be taken on this particular site; and ■ who would be responsible for putting the controls into practice and when.

2 The manager did this by: ■ checking the construction phase plan for the site. ■ looking at the general layout of the site as well as what materials were to be used (in particular what weight of blocks and lintels), what equipment and plant would be needed, and what general rules would need to be followed; ■ visiting the site; and ■ discussing the work and the site conditions and general rules with the principal contractor's site manager.

3 The manager made the supervisor responsible for briefing the bricklayers about the site rules on their first day

What are the Hazards?	Who might be harmed and how?	What are you already doing?	What further action is necessary?	Action by who?
Falling from height				
Collapse of scaffold				
Falling objects hitting head or body, including feet				
Manual handling				
Workers struck or crushed by moving vehicles on site				
Slips and trips				
Stepping on nails and sharp objects				
Hazard to eyes, cutting bricks				
Hazardous substances, mortar				
Dust from cutting bricks				
Noise from use of equipment, example angle grinder				
Vibration from use of equipment such as angle grinder				
Fire/explosion				
Welfare/first aid				

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