



RSK2601 (479609)
MNK203R (475345)

May/June 2012

ENTERPRISE RISK MANAGEMENT

Duration : 2 Hours

70 Marks

EXAMINERS :

FIRST :

MRS AT MUTEZO

SECOND :

MS CJ DE SWARDT

Use of a non-programmable pocket calculator is permissible.

This examination question paper remains the property of the University of South Africa and may not be removed from the examination venue.

This paper consists of 16 pages in total, including 2 pages for rough work, plus instructions for completing a mark-reading sheet.

This paper comprises two sections, A and B.

Section A consists of forty multiple choice questions that each counts 1 mark. The answers to these questions must be indicated on the mark-reading sheet provided. Write your student number and the unique number, **479609 for RSK2601** or **475345 for MNK203R** on the mark-reading sheet.

Section B comprises **THREE** paragraph/calculation type questions. Each question counts 10 marks. Section B must be answered in the designated areas on pages 11 to 14.

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Please note:

- 1 This is a fill-in examination paper and there is no need for any examination scripts. Students must hand over the examination paper to the invigilator before leaving the examination hall. Students must answer the questions in Section B in the spaces provided on the examination paper.
- 2 Any silent, non-programmable, battery-operated pocket calculator may be used.
- 3 Pages for rough work have been provided (see pages 15 and 16). No rough work will be marked.

[TURN OVER]

SECTION A: MULTIPLE-CHOICE QUESTIONS

This section consists of 40 multiple choice questions. Use the mark-reading sheet provided to indicate your answers.

1. Indicate the **correct** statement. *2 G12*

- 1 All events have a probability between 0 and 10.
- ② The most widely used measure of central tendency is the mean.
- 3 When the probabilities of all the possible outcomes are exactly the same, the mean and the expected value will differ.
- 4 If all possible outcomes of an event are known, a probability distribution can be developed.

2. The following share prices of ABC Company over the past five months were taken from a newspaper.

March	R23.50
April	R24.00
May	R24.20
June	R24.50
July	R25.00

*add & divide
by 5*

The expected value of the set of outcomes is ...

- 1 R121,20
- ② R 24,24
- 3 R 25,00
- 4 not possible to calculate due to a lack of information

* 3. Changes in the taxation policy of the government may be considered to be a ... risk to business organisations.

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- 1 systematic core business
- 2 incidental business
- ③ fundamental downside
- 4 unsystematic core business risk

4. An armed robbery at a bank in Johannesburg can be classified as ...

- ① particular downside risk
- 2 incidental business risk
- 3 fundamental downside risk
- 4 unsystematic risk

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[TURN OVER]

5. The risk of a negative variation in the value of financial instruments owing to market changes is referred to as

- ① investment risk
- 2 credit risk
- 3 liquidity risk
- 4 interest rate risk

23

6. Which of the following are hazards associated with a motor fleet?

- a Fire
- b Worn tyres
- c Theft
- d Wet road conditions

27

- perils can be insured

- hazards are causes of damage

Choose the correct combination.

- 1 all of the above
- ② b,d
- 3 c only
- 4 a,c

7. Assume a person driving under the influence of alcohol causes an accident resulting in injuries and damages. Under this scenario ...

- 1 driving under the influence is considered to be a risk
- ② the accident is considered to be a peril
- 3 driving under the influence is considered to be a peril
- 4 the accident is considered to be a hazard

- 27.

insurane would cover accidents
however not drunk driving

8. Core business risk of a retail organisation include ...

- a resource risks ✓
- b sales variability ✓
- c currency risks
- d interest rate risk

Choose the correct combination.

- 1 a,b,c,d
- 2 a,b,d
- 3 c,d
- ④ a,b

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[TURN OVER]

9. Corporate governance is defined in its narrowest sense as... 32

- 1 an informal system of accountability of the board of directors to shareholders
- 2 an informal and formal relationship between the corporate sector and its stakeholders
- 3 a formal system of accountability of the board of directors to stakeholders
- 4 a formal system of accountability of the board of directors to shareholders

*10. In terms of good corporate governance ... - PG 37

- a risk identification should be directed in the context of the company's purpose
- b the CEO should approve the company's chosen risk philosophy
- c the Chief Risk Officer should be responsible for the process of risk management
- d risk assessment should be done periodically

Choose the correct combination.

- 1 a,b,c,d
- 2 a,d
- 3 b,c,d
- 4 a,b,d

*11. The business approach to risk management ... 34

- 1 focusses on insurable and financial risks
- 2 adopts a holistic approach to managing risks
- 3 adopts a proactive approach to managing risks
- 4 is process driven

*12. The focused risk oversight model ... PG 29

- a is more suitable for use by retail organisations
- b appoints the CRO as champion of the business risk management model - 28
- c appoints the CRO to oversee the management of market and credit risks only - 29
- d is more suitable for use by financial organisations - 29

Choose the correct combination.

- 1 a,b,c,d
- 2 b,c,d
- 3 a,b,c
- 4 c,d

[TURN OVER]

13 Which of the following statements characterise an ERM approach as pointed out by De Loach 2000?

- a A structured process of decision-making is created.
 b ~~x~~ An inconsistent reporting framework for aggregating risk measures and information is provided.
 c Resource allocation is supported through the rigorous prioritisation of risks.
 d Transfer costs are reduced by pooling of risks.

Choose the correct combination.

- 1 a,b,c,d
 2 a,c,d
 3 b,c,d
 4 a,b,d

14. The successful implementation of ERM in organisations is supported by ...

- a strong existing risk cultures ✓
 b sufficient reporting structures
 c capable and dedicated cross-functional staff ✓
 d proper yardsticks

Choose the correct combination

- 1 a,b,c
 2 b,c,d
 3 a,c,d
 4 a,b,c,d

15. Alternative risk transfer techniques (ART)

- a involve the transfer of risk to capital markets ✓
 b give investment banks a new field of activities ✓
 c create opportunities for nonfinancial enterprises to transfer risk at lower cost ✓
 d provide insurance companies with an extension of their capacity base.

Choose the correct combination

- 1 a,b,c
 2 b,c,d
 3 a,c,d
 4 a,b,c,d

16. Enterprise risk management is characterised by a ...

- 1 narrow focus on hazard risks
 2 comprehensive, inclusive and proactive approach to risk management ✓
 3 functional approach to risk management responsibilities
 4 lack of consistency in terms of level of detail and reporting formats

[TURN OVER]

17. ... is an underlying factor of operational risk. ²⁴

- ① People risk
- ② Interest rate risk
- ③ Political risk
- ④ Customer default

18. When formulating risk management policies management should address the following aspects: ^{RSK 96}

- a. The responsibilities of risk oversight personnel ✓
- b. The approved methodologies for measuring risks ✓
- c. Risk tolerance levels ✓
- d. The relevant risk authorities in terms of commitment of resources to high-risk activities ✓

Choose the correct combination.

- ① a,b,c,d
- ② a,b,c
- ③ a,b,d
- ④ b,c,d

19. The standard deviation is ... ^{-RSK 10}

- ① a measure of central tendency - mean
- ② a measure of dispersion around the expected value ✓
- ③ obtained by multiplying each outcome by the probability of its occurrence - EV
- ④ the variance expressed as a percentage of the mean

20. The risk of not being able to repay its depositors on demand or, when the terms of the deposit require it, on expiry of the agreed period of notice or on the due date, is known as ^{RSK 23}

- ① investment risk
- ② credit risk
- ③ liquidity risk ✓
- ④ interest rate risk

21. A(n) ... is a graphic representation of any form of flow within and to the enterprise. ^{A2 RSK 110}

- ① organisational chart
- ② flow chart ✓
- ③ fault tree analysis
- ④ SWOT analysis

[TURN OVER]

22. The term associated with the worst loss that could happen to a firm is ... 114
- ① Accumulation
 - 2 "As if" analysis
 - 3 Normal loss expectancy
 - 4 Maximum possible loss
23. Which of the following is an example of standing charges? 116
- 1 Bank charges
 - ② Leasing charges
 - 3 Raw material prices
 - 4 Distribution expenses
24. Type 3 losses include losses that occur regularly, but which are trivial. These losses are characterised by ... 119
- 1 low frequency and low severity
 - 2 low frequency and high severity
 - 3 high frequency and high severity
 - ④ high frequency and low severity
25. Mzansi pharmacy would like to market a new hypertension drug. While the Department of Health was testing the drug, it discovered that the drug produced a harmful side effect. When Mzansi learnt of the Department's test result, Mzansi abandoned its plan to produce and distribute the drug. Mzansi's reaction illustrates risk ... 121
- ① avoidance
 - 2 assumption
 - 3 transfer
 - 4 reduction
26. Which of the following is a procedural risk control measure? 123
- 1 Erecting a security wall around a property.
 - 2 Having a back-up facility at a distant location.
 - ③ Emergency procedures such as recovery plans following a fire.
 - 4 A disclaimer notice delivered with the products of a company.
27. The process of establishing or offsetting long and short positions in order to diminish the portfolio's risk that could result from an adverse price movement is known as ... 133
- 1 speculation
 - ② hedging
 - 3 interest rate swapping
 - 4 insurance

[TURN OVER]

28. Indicate the correct statement. *12*

- 134*
- 1 Risk managers use insurance reviews to counter risk exposure.
 - ② The price of a stock is inversely related to the market rate.
 - 3 The long buyer expects the price of the asset to fall.
 - 4 A short position entails the buying and keeping of an asset.

29. Indicate the correct statement. *-125*

- 1 European options can be exercised at any time the holder wishes, until the expiry date
- ② European options can be exercised on the expiry date only.
- 3 American options can be exercised on the expiry date only.
- 4 Both American and European options can be exercised any time the holder wishes until the expiry date.

RE-CALCULATE!
* Use the following information to answer questions 30 and 31. *-135 D*

30. A participant in the market obtains an option to buy an asset at a strike price of R100,00. The cost (premium) of the option amounts to R1,50. The market price at the time the option is written is R95,00. Four months after the option is written the market price of the asset increases to R105,00.

The break-even price is...

- 1 R 95.00
- 2 R 96.50
- ③ R101.50
- 4 R105.00

*DOES UNDERSTAND CALCULATION!
TO BREAK EVEN (STRIKE PRICE + PREMIUM)*

*WILL ONLY HAPPEN IF
THE PRICE OF COMMODITY
HAS FOLLEN BELOW
THE STRIKE PRICE*

31. The holder of the option can ...

- 1 exercise the option but make a loss of R3,50
- ② exercise the option and make a profit of R3,50
- 3 walk away from the option and lose the premium of R1.50
- 4 walk away from the option and buy the asset at a lower price on the market

32. Institutions generally use swaps to *(137)*

- ① hedge or modify an existing asset or liability
- 2 cover currency risk exposure
- 3 increase the effective interest cost of borrowing
- 4 decrease the realised yield on an investment

[TURN OVER]

33. Which of the following guarantees the interest rate on a loan or deposit facility which will be required on a given future date? -141

- 1 Forward contract
- 2 Future contract *-notional commitment*
- 3 Interest rate collar
- ④ Forward rate agreement A2

34. Reporting on the risk profile, business performance and risk implications usually forms part of the ... risk report. -157

- 1 daily
- ② monthly
- 3 quarterly
- 4 annual

35. Monitoring processes are generally applied to... -163

- 1 keep up to date with regulatory requirements
- ② identify emerging risks A2
- 3 demonstrate management leadership
- 4 foster an environment that motivates people to learn

36. Which of the following is a method of monitoring a risk management process? 108

- 1 Internal audits
- 2 Insurances reviews *X*
- 3 Statutory records review
- 4 Fault tree analysis

37. Hurdle rates are used to ... -175

- 1 measure performance, taking into account the risks inherent in a portfolio A2
- 2 facilitate the allocation of capital based on risk
- ③ screen capital projects when using discounted cash flow techniques
- 4 strengthen the links between performance, accountability and established risk thresholds

38. Bank regulators use ... to determine the capital a bank is required to keep to reflect the market risk it is bearing. -176

- 1 Earnings at risk A2
- ② Value at risk
- 3 Cash flow at risk
- 4 Risk-adjusted return on capital

[TURN OVER]

A2
39. Indicate the **correct** statement.

- 1 Aggregation methods provide a qualitative means to transfer, avoid and securitise risk.
- 2 Aggregation is a way to summarise an extremely simple set of rules.
- 3 It is less cost-effective to manage pooled risks than individual risks.
- 4 An aggregate index can be used with the hedging of pooled risks.

40. Which of the following steps/tasks is essential in the establishment of a basis from which to launch an enterprise risk management (ERM) strategy?

- A2 181
- 1 Assessing risk management capabilities.
 - 2 Evaluating risk management performance
 - 3 Aggregating multiple risk measures.
 - 4 Cultivating a continuous improvement disposition.

[40 X 1 = 40 marks]

[TURN OVER]

SECTION B: PARAGRAPH QUESTIONS AND CALCULATIONS

ANSWER ALL THE QUESTIONS IN THIS SECTION

Question 1

Assume the following hypothetical distribution of possible losses due to fire at two separate premises of an organisation.

PREMISES A

OUTCOME	AMOUNT OF LOSS	PROBABILITY OF OUTCOME
A	R10 000	0,8
B	R15 000	0,2

PREMISES B

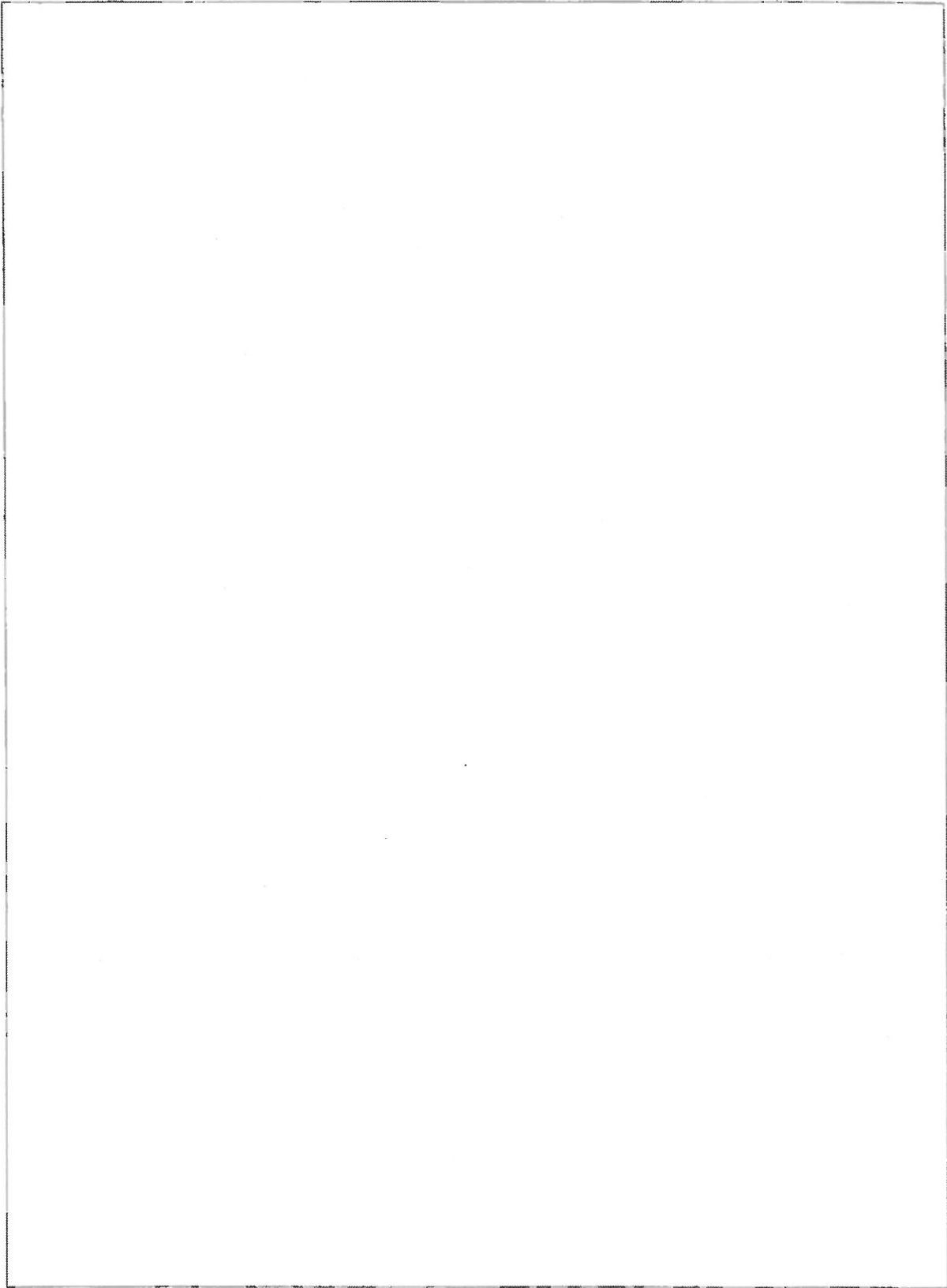
OUTCOME	AMOUNT OF LOSS	PROBABILITY OF OUTCOME
A	R10 000	0,50
B	R15 000	0,50

Evaluate the riskiness of the two premises. Show all calculations. (10)

OUTCOME	AMOUNT LOSS	PROBABILITY	EXPECTED V.
A	R10 000	0,8	8000
B	R15000	0,2	3000
MEAN EXPECTED V.	12500 25000		11 000

OUTCOME	AMOUNT LOSS	PROBABILITY	EXPECTED V.
A	R10 000	0,50	5000
B	R15000	0,50	7500
MEAN EXPECTED V	12500		12500

[TURN OVER]



[TURN OVER]

Question 2

- PG 112

Risk evaluation is probably one of the most difficult steps of a risk management process. It is therefore, important to use the correct methodology. Briefly provide your understanding of the following concepts relating to risk evaluation:

- Maximum possible loss (MPL) 3
- Normal loss expectancy 3
- "As if" analysis 4

• MPL - MAXIMUM POSSIBLE LOSS IS DEFINED AS THE MAX. COST OF LOSS THAT COULD OCCURE IN A SINGLE EVENT UNDER UNFAVOURABLE CONDITIONS, UNFAVOURABLE CONDITIONS IMPLY THAT THE OPERATING MEASURES DID NOT OPERATE AS PLANNED THEREFORE THE LOSS WAS NOT CONTROLLED.

• NLE - NORMAL LOSS EXPECTANCY IS THE MAX. LOSS THAT COULD OCCURE IN ONE SINGLE EVENT IF THE CONTROL MEASURE OPERATE AS EXPECTED.

• "AS IF" ANALYSIS IS GENERALLY USED TO MEASURE THE CASH FLOW AND ANNUAL IMPLICATIONS ON ALTERNATE INSURANCE OPTIONS, SUCH IMPLICATIONS AS THE RISKS & BENEFITS OF A \$10000 EXCESS PER CLAIM RATHER THAN A \$1000 PER CLAIM

(10)

[TURN OVER]

