



**MNK203-R** (471356) October/November 2006

**BUSINESS MANAGEMENT (RISK) 202**

Duration 2 Hours

70 Marks

EXAMINERS:  
FIRST: MRS A MUTEZO  
SECOND: MS CJ DE SWARDT

Use of a non-programmable pocket calculator permissible.

This paper consists of 14 pages plus instructions for completion of a mark reading sheet.  
This paper consists of TWO sections namely, A and B.  
This paper adds up to a total of 70 marks. This mark will be adjusted to a percentage mark.  
Section A is compulsory. It consists of thirty multiple choice questions that each counts 1 mark. The answers to this section must be completed on the mark reading sheet provided. Indicate the unique number (471356) on the mark-reading sheet.  
Section B consists of FOUR discussion/calculation type questions. You must answer ALL FOUR of these questions. Each question counts 10 marks. Section B must be answered in the designated areas on pages 10 - 12.

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Please note:

- 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 the spaces which have been provided in the examination paper.
- Pages for rough work have been provided (see pages 13 to 14). No rough work will be marked.

[TURN OVER]

**SECTION A : MULTIPLE CHOICE QUESTIONS**

Indicate the correct alternative in respect of each alternative on the mark-reading sheet.

- A pack of cards consists of four types of cards – diamonds, hearts, spades and clubs. Each pack contains 13 diamonds, 13 hearts, 13 spades and 13 clubs. What is the probability that a spade will be drawn?

- 0.15
- 0.077
- 0.25
- 0.01

Consider the following set of share prices and answer questions 2 to 5. Use 2 decimals in your calculations and answers.

| SHARE A |               |
|---------|---------------|
| PRICE   | PROBABILITY % |
| R22.00  | 25            |
| R25.00  | 25            |
| R20.00  | 25            |
| R26.00  | 25            |

| SHARE B |               |
|---------|---------------|
| PRICE   | PROBABILITY % |
| R28.00  | 25            |
| R33.00  | 25            |
| R21.00  | 25            |
| R19.00  | 25            |

- The expected value of share A is .....

- R23.25
- R23.10
- Greater than that of share B
- R93.00

- The variance of share A is .....

- R22.74
- R5.69
- R31.19
- R2.39

Handwritten calculations for expected value of share A:  

$$\frac{22 \times 0.25 + 25 \times 0.25 + 20 \times 0.25 + 26 \times 0.25}{4} = \frac{110.25}{4} = 27.56$$

Handwritten calculations for variance of share A:  

$$\frac{22^2 \times 0.25 + 25^2 \times 0.25 + 20^2 \times 0.25 + 26^2 \times 0.25}{4} - (27.56)^2 = \frac{2274.5}{4} - 760.5536 = 568.625 - 760.5536 = -191.9286$$

4. The standard deviation of share B

- 1 R124.74
- 2 R31.19
- 3 R3.97
- 4 R5.58

5. Indicate the incorrect statement

- 1 Standard deviation measures the variation of a set of outcomes.
- 2 The coefficient of variation for Share A is lower than that of share B.
- 3 The expected value and the mean of a set of outcomes will always be the same value
- 4 An investment in Share B is more risky than an investment in Share A

6. Indicate the correct statement.

- 1 The degree of risk is calculated as the frequency with which an event occurs
- 2 Risk implies the presence of uncertainty.
- 3 Risk is the deviation of actual from expected results.
- 4 There may be certainty about occurrence of an event and its outcome.

7. Indicate the correct statement.

- 1 Speculative risk deals only with those risks that have a loss or no-loss outcome.
- 2 Core business risks include activities, decisions and events that have an indirect impact on the operating profit of the organisation.
- 3 The major subcategory of incidental risks is financial risk.
- 4 Unsystematic risk affects an individual enterprise and is related to the rest of the economy.

8. Which of the following statements is not a shortcoming of the traditional approach to risk management?

- 1 Traditional risk management ineffectively integrates the effects of operating managers with the activities of risk managers.
- 2 Risk management has a limited view of complex problems.
- 3 Fragmented risk management responsibility.
- 4 Limited focus on discrete risks.

9. In assessing risk it is important to consider

- 1 determining the root causes of the identified risk.
- 2 setting time horizons for the development of financial statements.
- 3 identifying and communicating the top risks currently faced by the enterprise.
- 4 identifying the risk attached to intangible assets crucial to value creation.

10. A devastating hurricane in an area where a manufacturing plant is located can be classified as

- 1 fundamental risk
- 2 particular risk
- 3 financial risk
- 4 resource risk

11. Motor car accidents are an example of which level of uncertainty?

- 1 Subjective uncertainty
- 2 Objective uncertainty
- 3 Uncertainty
- 4 None of the above

12. Indicate the correct statement.

- 1 Car hijacking can be regarded as type 1 losses
- 2 Maximum possible loss refers to the loss that could arise from a single event given that all risk control measures operate as expected.
- 3 An ignorant security guard in a supermarket can be regarded as a peril.
- 4 Short-term fluctuations in sales of an organisation can be classified as incidental risk.

13. Various factors contribute to the successful implementation of Enterprise Risk Management (ERM), including inter alia:

- a Treating ERM as a stand alone process.
- b Strong and visible support from senior management.
- c Separating the risk-taking activities from performance evaluation
- d Proceeding incrementally and leveraging early 'wins'.

Choose the correct combination

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

14. Indicate the correct statement.

- 1 Individual risks and interdependencies can better be addressed by an integrated team.
- 2 Traditional risk management is consistent and generates reliable reports.
- 3 The only objective of risk reporting is to increase risk transparency.
- 4 Business risk management adopts a portfolio view of all risks.

15 In terms of the King II report, businesses should report on their

- a transformation policy
- b environmental management practices
- c The risk management policy.
- d remuneration packages of directors.

Choose the correct combination

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

16 Indicate the correct statement.

- 1 Hedging results in higher profit margins.
- 2 Interest collars protect both the lender and the borrower.
- 3 A short position entails the buying and keeping of an asset.
- 4 The buyer of an option commits himself/herself to buy or sell the specified asset on the specified date.

17 Which one of the following is considered a traditional risk control measure?

- 1 Failure mode analysis.
- 2 Safety management programmes
- 3 Hazard and operational studies
- 4 Failure tree analysis.

18 Enterprises can use the following methods to identify risks that should be included in their framework

- a Internal interviewing
- b External sources
- c Tools, diagnostics and processes
- d Production flowcharts

Choose the correct combination

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

19 A company leasing instead of owning a fleet of cars is an example of

- 1 risk avoidance.
- 2 risk reduction
- 3 risk transfer
- 4 risk elimination

20 Indicate the incorrect statement

- 1 Hedging limits risks and therefore losses that may arise.
- 2 A short position involves buying and holding an asset.
- 3 Futures are traded on a formal exchange.
- 4 An interest rate swap is used to hedge or modify an existing asset or liability.

21. The following list of expenses was taken from the Income Statement of Company X:

|   | R       |
|---|---------|
| Depreciation on security equipment                        | 10 000  |
| Excess paid on insurance claim                            | 13 000  |
| Insurance premiums  | 11 000  |
| Salaries: Sales staff                                     | 123 000 |
| Wages: Security guard                                     | 50 000  |
| Subscription: Cover magazine                              | 120     |
| Conference fees: International Risk Management Conference | 12 000  |
| Maintenance cost : Electric fence                         | 3 000   |
| Stationery  | 15 000  |
| Telephone   | 60 000  |
| Consultant fees : AA Risk Consultants                     | 24 000  |

Expenses attributed to risk control amounts to ...

- 1 R 99 120
- 2 R 89 120
- 3 R112 120
- 4 R 123 120

22. Which one of the following fire losses would you regard as the most serious?

- 1 R5m which occurs every ten years
- 2 R3m which occurs every seven years
- 3 R1m which occurs every three years
- 4 R9m which occurs every sixteen years

23. A six-month put option is written on a commodity at a strike price of R85. The premium of the option is R0.50. The market price of the commodity at the time the option was written was R84. Three months after the option was written the market price of the commodity has dropped to R83.

Based on the aforementioned information the buyer of the option will

- 1 walk away from the option and lose the premium of R0.50.
- 2 walk away from the option and buy the commodity at a lower price in the market.
- 3 exercise the option and make a profit of R1.50.
- 4 exercise the option and make a profit of R2.50.

24. Indicate the **incorrect** statement. Alternative Risk Transfer (ART) techniques involve:

- 1 the transfer of risk to capital markets
- 2 giving investment banks a new field of activities
- 3 powering the trend towards global operations
- 4 providing insurance companies with an extension of their capacity base.

25. Indicate the **correct** statement

- 1 Hurdle rates incorporate the riskiness of the business activities into the measurement of the expected return.
- 2 "At risk" frameworks quantify risks on the basis of the probability distributions of returns observed in historical data.
- 3 Risk-adjusted performance measures provide a means of evaluating return, risk and capital trade-offs and comparing performance across different units or activities.
- 4 When selling interest rate futures one will benefit from a rise in the interest rates.

26. Which of the following are responsibilities of the chief risk officer (CRO)/risk management committee?

- a Track changes in the business context and risk environment
- b Measure the performance of the implemented risk management strategies.
- c Back-test models and assumptions, and make appropriate adjustments.
- d Determine how often risk models and analysis should be updated.

Choose the correct combination

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

27. The benefits of including a monitoring stage in the risk management process include ...

- a accumulating evidence to support assumptions and results of the analysis
- b increasing the cost associated with improper or redundant risk control.
- c identifying new or changing risks.
- d improving the risk management process as a whole

Choose the correct combination

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

28. Monitoring processes are generally applied to accomplish the following:

- a determining changes in an enterprise's risk profile
- b identifying emerging risks
- c evaluating risk management performance
- d evaluating the adequacy of specific measures, policies and procedures

Choose the correct combination

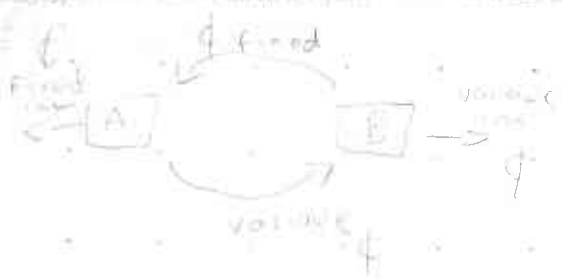
- 1 a,b,c
- 2 b,c,d
- 3 a,c,d
- 4 a,b,c,d

29. The following are all enablers of the continuous improvement philosophy except:

- 1 benchmarking of performance to identify best practices.
- 2 interactive communications and sharing of knowledge.
- 3 integrating the enterprise's risk language and risk management process into its employee learning programme.
- 4 track changes in the business context and risk environment.

30. Indicate the correct statement

- 1 Aggregation methods provide qualitative means to transfer, avoid and securitize risk
- 2 Aggregation is a way to summarise an extremely simple set of rules.
- 3 Risks add up only when evaluated individually and in total.
- 4 Aggregation of multiple risks improve reporting and capital allocation.



SECTION B : PARAGRAPH QUESTIONS AND CALCULATIONS

Question 1

1.1 Briefly explain what an interest rate swap is and list any four purposes (uses) of interest rate swaps. (6)

Two parties do not own the same asset but want to have it  
 independently of their own financial position  
 and they do for the same period from different  
 locations with different exchange rates and other  
 variable in purposes are  
 1) to hedge or modify their existing asset/liability  
 2) adjust an existing cash flow  
 3) capture in the market of dollar  
 4) protect markets out locally

1.2 Briefly explain the difference between interest rate caps and collars. (4)

Rate caps - limit how far the rate can go  
 and used whenever the holder of asset rates ↑  
 - they only agree if partially compensated  
 for rate that increase when rates ↑

Rate collars - with rate cap + rate floor are placed  
 around a restricted loan rate  
 - borrower is protected against rates  
 going to high while lender is protected  
 against rates going too low