



MACHAKOS UNIVERSITY

University Examinations 2021/2022 Academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF MATHEMATICS AND STATISTICS

SECOND YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (ACTUARIAL SCIENCE)

SAC 204: RISK MANAGEMENT

DATE: 14/12/2021

TIME: 11.00-1.00 PM

INSTRUCTION:

Answer Question One and Any Other Two questions

QUESTION ONE (30 MARKS)

- a) Using relevant examples, differentiate between:
- i. Pure and speculative risk (4 marks)
 - ii. Diversifiable risk and non-diversifiable risk (4 marks)
- a) Explain what is meant by moral hazard in insurance. (2 marks)
- b) Define the term captive as applied in insurance risk management. (2 marks)
- c) Outline the benefits of risk management to a firm. (4 marks)
- d) Wabebe Wote is a PSV operator in Twaendapi, which owns a fleet of 500 buses. The risk manager is considering a partial retention program for physical losses to the buses. Outline four methods the company can use to pay for physical damage losses to company buses. (4 marks)
- e) What are the two major differences between insurance and hedging? (4 marks)
- f) Outline the major advantages and disadvantages of insurance as a risk management tool. (6 marks)

QUESTION TWO (20 MARKS)

The main techniques for managing risk can be classified broadly as either risk control or risk financing. Discuss, with examples,

- a) the major risk control techniques. (10 marks)
- b) the major risk financing techniques. (10 marks)

QUESTION THREE (20 MARKS)

- a) Differentiate between:
 - i. Objective risk and subjective risk (2 marks)
 - ii. Peril and hazard (2 marks)
- b) Captive insurers are formed for several reasons. Discuss the role and the reasons for creating captives. (8 marks)
- c) Business firms face a number of speculative financial risks.
 - i. Define financial risk management. (2 marks)
 - ii. Explain three speculative financial risks that may be considered by a risk manager. (6 marks)

QUESTION FOUR (20 MARKS)

- a) Explain the various categories of risk that organizations may be faced with. (12 marks)
- b) Highlight, giving clear relevant examples, the major categories of potential loss exposures that a risk manager should consider and identify. (8 marks)

QUESTION FIVE (20 MARKS)

- a) What is the meaning of risk management? (2 marks)
- b) Explain the objectives of risk management. (8 marks)
- c) Highlight (in the correct order) the four steps in the risk management process. (4 marks)
- d) Discuss risk avoidance and risk retention in a risk management setting. (6 marks)