

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF SCIENCE IN ACTUARIAL SCIENCE**

ACMT 101: INTRODUCTION TO ACTUARIAL SCIENCE

STREAMS: BSC (ACTR SCI)

TIME: 2 HOURS

DAY/DATE: MONDAY 10/12/2018

11.30 AM – 1.30 PM

INSTRUCTIONS:

- **Answer Question One and Two other Questions**
- **Sketch maps and diagrams may be used whenever they help to illustrate your answer**
- **Do not write anything on the question paper**
- **This is a closed book exam. No reference materials are allowed in the examination room**
- **There will be NO use of mobile phones or any other unauthorized materials**
- **Write your answer legibly and use your time wisely.**

QUESTION ONE (30 MARKS)

- (a) What is actuarial science? [3 marks]
- (b) Differentiate between a qualified actuary and actuarial science graduate. [4 marks]
- (c) Explain why the number of actuaries in the developing countries is small? [6 marks]
- (d) Explain the concept of risk and return in the actuarial science market. [4 marks]
- (e) Name four types of actuaries that you know. [4 marks]
- (f) Explain difference between life and non-life insurance. [4 marks]
- (g) Explain the opportunities of actuarial science graduates in health sector. [5 marks]

QUESTION TWO (20 MARKS)

- (a) Explain the differences between insurable and non-insurance risks giving examples in each case. [10 marks]
- (b) Explain any five principles of insurance. [10 marks]

QUESTION THREE (20 MARKS)

- (a) Explain the common steps involved in risk management at Kenyan insurance market. [12 marks]
- (b) Explain the role of an actuary in the insurance market. [8 marks]

QUESTION FOUR (20 MARKS)

- (a) How do actuaries help in the enterprise risk management? Explain five. [12 marks]
- (b) Explain the role of International Actuarial Association (IAA) to countries offering actuarial practices such as Kenya. [8 marks]

QUESTION FIVE (20 MARKS)

- (a) Why is Ethics and Professionalism important in the practice of actuaries? [10 marks]
 - (b) Briefly explain the history and origin of actuarial practice. [10 marks]
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