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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATIONS, 2024/2025 ACADEMIC YEAR**  
**THIRD YEAR, SECOND SEMESTER EXAMINATION**  
**FOR THE DEGREE OF BACHELOR OF SCIENCE IN MATHEMATICS**  
**(SPECIAL EXAMINATION)**

**KMA 309 LIFE ASSURANCE**

**DATE: 15<sup>TH</sup> AUGUST, 2024**  
**TIME: 11:30 AM – 1:30 AM**

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE: COMPULSORY (30 MARKS)**

- a) Discuss three personal risks relating to the loss of ability to earn income. **(3 Marks)**
- b) Illustrate using examples the difference between life and non-life insurance. **(3 Marks)**
- c) Risk is the probability that an event could occur that causes a loss. Briefly explain three classifications of risks as applied in insurance. **(6 Marks)**
- d) Illustrate using an example the concept of liability risk and how one can mitigate against liability risk. **(3 Marks)**
- e) Reinsurance, or insurance for insurers, transfers risk to another company to reduce the likelihood of large payouts for a claim. Briefly explain five functions of the reinsurance contract. **(5 Marks)**
- f) Actuaries analyze the financial costs of risk and uncertainty. They use mathematics, statistics, and financial theory to assess the risk of potential events, and they help businesses and clients develop policies that minimize the cost of that risk. Discuss four types of actuaries and their roles. **(4 Marks)**
- g) Life assurance is an agreement between a life assurance company and a policyholder; in return for a premium from the policyholder, the company commits to pay the beneficiary upon the death of the assured. Identify and explain three types of life assurance contracts and give their actuarial notations. **(6 Marks)**

**QUESTION TWO: (20 MARKS)**

- a) Insurance, just like any other business, is faced with various challenges while trying to market and sell policy covers. Briefly explain four challenges associated with the marketing of insurance products. **(4 Marks)**
- b) Insurance is a contract between the insurer and insured, who have to abide by the law that provides for remedy in case of any contravention. Illustrate using examples three principles that guide insurance contracts. **(6 Marks)**
- c) Explain the term pension scheme hence identify and explain two types of pension schemes in Kenya. **(4 Marks)**

- d) Group insurance provides standard coverage to a group of people at competitive premium rates. Identify and explain any three features of group policies. **(6 Marks)**

### **QUESTION THREE (20 MARKS)**

- a) Discuss the term intermediaries in the insurance industry and explain two types of intermediaries in insurance. **(4 Marks)**
- b) Explain the term surplus as used in economics hence differentiate between consumer surplus and producer surplus and give an example for each. **(5 Marks)**
- c) Statutory regulations are laws and rules enacted by a government, through legislation, that are binding and enforceable within a particular jurisdiction.
- i) Identify and explain three statutory regulators and state the ministries they operate in Kenya. **(6 Marks)**
- ii) Giving examples, highlight five benefits of statutory regulations in Kenya. **(5 Marks)**

### **QUESTION FOUR: (20 MARKS)**

- a) Kenya's Finance Act of 2023 introduced fundamental changes to Kenya's tax and social contributions regime. Explain two key features or changes outlined in the Act. **(2 Marks)**
- b) Kenya Revenue Authority is a government parastatal mandated to collect taxes on residents and businesses in Kenya. Giving examples, discuss three types of taxes in Kenya. **(6 Marks)**
- c) Long-term financing is any means to provide financial resources, such as a bank loan or leasing agreement, that has terms exceeding one year. Giving examples, explain three sources of long-term business funds. **(6 Marks)**
- d) Solvency is a company's ability to meet its long-term financial obligations and continue its operations in the long run. Identify and briefly explain three ways a company can manage and control solvency. **(6 Marks)**

### **QUESTION FIVE: (20 MARKS)**

- a) Financial institutions use the underwriting process to determine the risk associated with a loan, policy approval, or investment. Explain
- i) The steps involved in the underwriting process. **(4 Marks)**
- ii) Four advantages of underwriting in the insurance industry. **(4 Marks)**
- b) Personal financial planning involves creating a comprehensive strategy to manage your finances and achieve financial goals. Describe six ways through which personal financial planning is achieved. **(6 Marks)**
- c) Bonus distribution involves providing additional compensation or rewards to employees based on predetermined criteria. Identify and explain three methods of bonus distribution in a company. **(6 Marks)**