JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BIOLOGICAL, PHYSICAL, MATHEMATICS, APPLIED STATISTICS AND ACTUARIAL SCIENCE

UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE ACTUARIAL

1ST YEAR 1ST SEMESTER 2023/2024

REGULAR (MAIN)

COURSE CODE: WA 2210

COURSE TITLE: INVESTMENT AND ASSET MANAGEMENT I

EXAM VENUE: **STREAM: (BSc Actuarial Science)**

DATE: **EXAM SESSION:**

TIME: 2.00 HOURS

<u>Instructions:</u>

1. **Answer question 1 (Compulsory) and ANY other 2 questions**
2. **Candidates are advised not to write on the question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

QUESTION 1

a.) Define the following terms (5marks)
   i.) Asset
   ii.) Portfolio
   iii.) Diversification
   iv.) Optimization
   v.) Martingale

b.) State and explain seven factors an investor keeps in view while deciding about making investment in any particular field. (7marks)

c.) Explain what is meant by sweat equity . (2marks)

d.) Discuss 6 sources of internal business risks. (6marks)

e.) Give the differences between:

   i.) Investors and speculators (2marks)

   ii.) Systematic and unsystematic risk (2marks)

f.) Security A has the following probability distribution of returns:

Scenario	Probability	Return
1	0.1	15%
2	0.8	25%
3	0.1	35%

What is the variance for security A?

QUESTION 2

a.) You are an advisor reviewing fund managers performance over the last year. Your records indicate that government bonds have returned 6% over the period. You have also obtained the following information

	Return	Standard Deviation	Beta
Market Portfolio	0.152	0.26	
Fund manager W	0.170	0.18	0.9
Fund manager X	0.160	0.17	0.8
Fund manager Y	0.140	0.17	1.3
Fund manager Z	0.158	0.28	0.9

The beta for the market portfolio is?

(6marks)

b.) Given the above information, which fund manager's performance shows it lies on the Capital Market Line? Show your calculations. (6marks)

c.) State four methods an investor may use to minimize risk exposure. (8marks)

QUESTION 3

a.) Give the equation of Capital Asset Pricing Model and explain all the parameters. (10marks)

b.) i.) Explain 3 types of warrants (6marks)

ii.) Give 4 parties involved in the issue of shares in the stock exchange market (4marks)

QUESTION 4

1. State the main stages of investment process (5marks)

2. Define : i.) sinking funds (4marks)
   ii.) portfolio

3. State and explain 5 ratios that may aid investment management in finding the balance between efficiency and liquidity. (10marks)

4. State and explain 3 determinants of the level of interest rates. (6marks)

QUESTION 5

a.) Explain 5 types of debentures (10 marks)

b.) Define: i.) structure of interest (10marks)
   ii.) taxation
   iii.) inflation hedge
   iv.) risk aversion
   v.) inflation