# JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY SCHOOL OF MATHEMATICS AND ACTURIAL SCIENCE UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE <br> ACTUARIAL $2^{\text {ND }}$ YEAR $2^{\text {ND }}$ SEMESTER 2018/2019 ACADEMIC YEAR MAIN (RESIT) 

COURSE CODE: SAC 210
COURSE TITLE: Investment and Asset Management I
EXAM VENUE: STREAM: (BSc. Actuarial)
DATE: EXAM SESSION:
TIME: 2.00 HOURS
Instructions:

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 ONE

a) Explain briefly the following concepts
i). Investment
ii). Asset management
iii). Portfolio
iv). Sinking fund
v). Performance monitoring.
[5 marks]
b) Give and explain five factors an investor considers while investing in any field. [5 marks]
c) Discuss briefly FIVE characteristics of an investment.
[10 marks]
d) Explain the concept of taxation.
[2 marks]
e) At the beginning of the year an investment fund is set up with an initial deposit of 1000 . Another deposit of 1000 is made at the end of 4 months. Withdrawals of 200 and 500 were made at the end of 6 months and 8 months respectively. The amount in the fund at year's end if 1560 . Calculate
i). the money-weighted yield rate for this fund during the year.
[4 marks]
ii). the time weighted return of rate.
[4 marks]

## QUESTION TWO

a) Explain the following terms;
i). Risk aversion
ii). Risk
[2 marks]
b) Mike receives cash flows of 100 today, 200 in one year, and 100 in two years. The present value of these payments under an annual effective rate $i$ is 364.46 . Calculate the rate of interest $i$.
c) Discuss briefly the importance of investments.

## QUESTION THREE

a) Explain the theory behind the term structure of interest rates. [5 marks]
b) A company issues a 10 year bond with a coupon rate of $10 \%$. Find the price that guarantees a return of $12 \%$ compounded semi-annually.
c) Compare and contrast a treasury bill with a treasury bond.
d) Compare and contrast the preference and ordinary shares.

## QUESTION FOUR

a) Determine the price of Ksh 1000 worth of an investment with a yield to maturity of $18 \%$ and 10 years of maturity. What is the yield to maturity if its price is Ksh 220? [5 marks]
b) Discuss five types of short - term investment vehicles.
c) What information does the capital market provide to help the financial manager make decisions?
d) How can the government use the corporation tax system to encourage or discourage a particular activity?

## QUESTION FIVE

a) Discuss the objectives of the following
i. Managers
ii. Customers
iii. Government
iv. Banks and other lenders.
b) Discuss any three characteristics of a good tax system.
c) A fund had a value of Ksh 2.0 million on 1 January 2015. On 1 May 2015, Ksh 2.5 million was invested. Immediately before this investment, the value of the fund was Ksh 2.1 million. At the close of business on 31 December 2015, the value of the fund was Ksh 4.2 million.
i. Calculate the annual effective time-weighted rate of return for 2015. [2 marks]
ii. Calculate the annual effective money-weighted rate of return for 2015. [2 marks]

