# MACHAKOS UNIVERSITY 

University Examinations 2021/2022 Academic Year
SCHOOL OF BUSINESS, ECONOMICS, HOSPITALITY AND TOURISM MANAGEMENT DEPARTMENT OF BUSINESS ADMINISTRATION AND FINANCE

THIRD YEAR FIRST SEMESTER EXAMINATION FOR
BACHELOR OF FINANCE (OPTION)
BAC 308 CORPORATE FINANCE
DATE: 2/9/2022
TIME: 8.30-10.30 AM

## INSTRUCTIONS

- Answer question ONE (Compulsory) and any other TWO questions


## QUESTION ONE (COMPULSORY) (30 MARKS)

a) The price of a warrant is determined by the interaction of six variables. Highlight any five of them.
(5 marks)
b) The Arbitrage Pricing Theory (APT) is much more robust than the capital asset pricing model. Explain.
c) Consider two investments, A and B each having the following investment characteristics;

| Investment | Expected Return (\%) | Proportion |
| :---: | :---: | :---: |
| A | 17 | $3 / 4$ |
| B | 14 | $1 / 4$ |

Compute the expected return of the portfolio
d) Explain six objectives of a business firm.
marks)
e) The CAPM is given as follows:
$R_{i} \quad=\quad R_{F}+\left[E\left(R_{M}-R_{F}\right)\right] B$

Where $\quad R_{i} \quad$ is required return of security $i$
$\mathrm{R}_{\mathrm{F}} \quad$ is the risk free rate of return
$E\left(R_{M}\right)$ is the expected market rate of return
$B \quad$ is Beta.
Explain the relationship that can be observed between $\beta_{i}$ and $E\left(R_{i}\right)$ from the above formula.

## QUESTION TWO (20 MARKS)

a) Explain four advantages of short-term borrowing.
b) With the help of a diagram explain the efficient frontier.
c) Namanga ltd has an outstanding ksh. 20,000 bond this is convertible into common stock at Ksh. 1,000 per share. The current market price is Ksh. 600 per share.

Calculate the conversion value.

## QUESTION THREE (20 MARKS)

An investor committed $80 \%$ of his funds in shares of company Y and $20 \%$ in shares of company Z .
The following probability distribution relates to the shares of the companies:
Economic state Probability Expected Return in Percentage

|  |  | $Y$ | $Z$ |
| :--- | :---: | :---: | :---: |
| Boom | 0.20 | 9 | 5 |
| Steady growth | 0.60 | 12 | 11 |
| Slump | 0.20 | 3 | 6 |

Calculate the:
a) Expected return of shares of companies Y and Z (4 marks)
b) Expected portfolio return
c) Standard deviation of returns of shares of companies Y and Z
d) Covariance between returns of shares of companies Y and Z
e) Coefficient of correlation between returns on shares of Y and Z
f) Portfolio risk

## QUESTION FOUR (20 MARKS)

a) Explain five implications of efficient market hypothesis to financial decision makers
b) $\quad \mathrm{ABC}$ Company is considering the acquisition by shares of XYZ Company. The following information is available.

## ABC Company XYZ Company

| Present earnings | Shs $10,000,000$ | Shs 2,500,000 |
| :--- | ---: | ---: |
| Shares | $2,500,000$ | $1,000,000$ |
| Earnings per share | Shs 2 | Shs 1.25 |
| Price/earning ratio | 8 | 6 |
| Price of shares | Sh 32 | Sh 15 |

XYZ Company has agreed to an offer of Shs 17.5 a share to be paid in ABC Company shares.

## Required:

Consider the effect of the acquisition to the earnings per share. marks)

## QUESTION FIVE (20 MARKS)

a) Explain the overall merger process for two or more companies merging (10 marks)
b) Outline five participants in project finance

