

TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING AND FINANCE

UNIT CODE: BFI 4402 UNIT TITLE: PORT FOLIO MANAGEMENT AND INVESTMENT ANALYSIS

SERIES: FEB/MAY SERIES

TERM PAPER ONE

TIME: 2 HOURS

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS.

QUESTION 1

- a) Discuss the assumptions of B-S Model (10Marks)
b) Calculate the value of a call option using B-S model given the following information:

Current market price of the share (S): Rs 75.

Volatility (standard deviation) 0.45

Exercise price (E): Rs 80

Risk free rate (rf) 0.12

Time to expiration (t) 6months= 0.5 years

If the investor wants to buy a put with same exercise price and expiration date as call option , what will be the value of Put? (10Marks)

Note: B-S Model is as follows: $C_0 = S_0 N(d_1) - E e^{-rf} N(d_2)$

- c) Write brief notes on the Investment process.(10Marks)

QUESTION 2

Given the probability distribution for the returns on Stock A and B as follows, compute the security expected returns, risk and portfolio returns. (10marks)

State	Probability	Return on Stock A	Return on Stock B
1	20%	5%	50%

2	30%	10%	30%
3	30%	15%	10%
4	20%	20%	-10%

b) Discuss the assumptions of the Capital Asset Pricing Model (10marks)

QUESTION THREE

GoldStar Manufacturing Limited is evaluating an investment opportunity that would require an outlay of Shs. 100 million. The annual net cash inflows are estimated to vary according to economic Conditions.

Economic Conditions	Probability	Cash flow Sh. Million
Very good	0.10	35
Good	0.45	28
Fair	0.30	24
Poor	0.15	18

The firm's required rate of return is 14 percent. The project has an expected life of Six years.

Required:

- Compute the expected net present value (NPV) of the proposed investment. (7marks)
- Pwani Limited is planning advertising campaigns in three different market areas. The estimates of probability of success and associated additional profits in each of the three markets are provided below:

	Market 1		Market 2		Market3	
	Profit Sh	Probability	Profit Shs	Probability	Profit Shs	Probability
Fair	10,000	0.40	5,000	0.20	16,000	0.50

Normal	18,000	0.50	8,000	0.60	20,000	0.30
Excellent	25,000	0.10	12,000	0.20	25,000	0.20

Required

- i) Compute the expected value and standard deviation of profits resulting from advertising campaigns in each of the market areas.(7marks)
- ii) Rank the three markets according to riskiness using the coefficient of variation.(6marks)

QUESTION 4

- a) Suppose you observe that high-level managers make superior returns on investments in their company's stock .Would this be a violation of Weak-form market efficiency?
Would it be a violation of strong –form market efficiency? (10Marks)
- b) Discuss the concept of Market Hypothesis using a diagram. (10Marks)

QUESTION FIVE

- a) Write brief notes on active strategy and Passive strategy in respect to common stock market. (10marks)
- b) Distinguish between Options and Futures Contracts ,(10Marks)