

CHUKA



UNIVERSITY

## UNIVERSITY EXAMINATIONS

## ODEL

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF COMMERCE  
AND COOPERATIVE MANAGEMENT**

**BCOM 435: INVESTMENT AND PORTFOLIO MANAGEMENT****STREAMS:BCOM/BCOOP Y4S2****TIME: 2 HOURS****DAY/DATE: TUESDAY 30/03/2021****8.30 A.M – 10.30 A.M****INSTRUCTIONS:****Answer question one and any other two questions****QUESTION ONE (30 MARKS)**

- (a) Distinguish between investment and speculation. [6 marks]
- (b) Describe the security analysis stage of investment management process. [6 marks]
- (c) The fact that not the entire risk of a portfolio can be diversified away, no matter how many securities are included, makes it possible to classify risk in two categories – systematic and non systematic risk. Distinguish between the categories and explain two sources of each. [6 marks]
- (d) The following is data on return risk characteristics of three risky securities P,Q and R.

	P	Q	R	Corr
Expected return %	25	22	20	
Standard deviation %	30	26	24	
Correlation:				
PQ				-0.5
QR				0.4
PR				0.6

An investor is contemplating investing his wealth in a portfolio of two assets which will be weighted equally. Which of the combination PQ, PR and RQ yield lowest risk?

marks]

**QUESTION TWO**

- (a) Explain circumstances under which the investor may find it necessary to undertake revision of his or her portfolio composition. [3 marks]
- (b) Consider the following data for a particular sample period

	Fund A	Marketing portfolio (M)
Average return	35%	28%
Beta	1.2	1.0
Standard deviation	42%	30%
Non-systematic risk	18%	0%

The 91 days treasury bill rate during the period was 6%. Calculate and comment on the performance of fund A in relation to the market portfolio under the following measures;

- (i) Sharpe [3 marks]
- (ii) Treynor [3 marks]
- (iii) Information ratio [3 marks]
- (c) An investor is evaluating three portfolios with the following characteristics;

Portfolio	Portfolio estimated return %	Portfolio beta
1	10%	1.2
2	14%	0.8
3	13.5%	0.9
4	12.5%	0.6

The expected return on the market portfolio is 14.5%. The risk free rate of interest is 4.5%.

**Required;**

Basing on a suitable equilibrium model, advice on which among the above portfolios are suitable candidates for buying.

**QUESTION THREE**

- (a) Explain the following terms as used in mutual fund investments
- (i) Money market funds [2 marks]
  - (ii) Exchange traded funded funds [2 marks]
  - (iii) Balanced fund [2 marks]
  - (iv) Index fund [2 marks]
- (b) Pine bridge Investment (EA) Ltd manages an equity mutual fund and would like to calculate the net asset value (NAV) for a single share. The following information is given with regard to the fund.

Portfolio composition ;

Stock	Number of shares (million)	Daily closing price \$
X ltd	12	3.75
Y ltd	5	8.55
Z ltd	3	4.50

Cash and cash equivalents	\$ 15 million
Accrued income	\$ 24 million
Short term liabilities	\$ 1 million
Long term liabilities	\$ 12 million
Accrued expenses for the day	\$ 5000

Calculate the NAV for the fund and internet your answer. [6 marks]

(c) An investor holds 5000 shares in ICDC Ltd, a listed company at NSE. ICDC has been paying average dividends of ksh 2 per share per annum in recent years. The dividends are expected to grow at a rate of 15% p.a over the coming 3 years, then at a rate of 10% over the next three years and finally at a rate of 5% p.a to perpetuity. The required rate of return is 9%.

**Required :**

Calculate the current value of the shareholding in ICDC Ltd, using the dividend growth model.

[6 marks]

#### QUESTION FOUR

- (a) Explain price risk and reinvestment under bond investment. [4 marks]

(b) Compute the Macaulay duration for a bond with the following status and explain its significance to a bond investor:

- Par value ksh 1000
- Coupon 5%
- Current trading price: ksh 960.27
- Yield to maturity: 6.5%
- Years to maturity: 3
- Coupon pay-out: One per year [8 marks]

(c) Two portfolio were constructed, one consisting of equity shares and the other consisting of debentures. The value of equity shares, at the time of constructing the portfolio was ksh 60,000/- (at the rate of ksh 100/- per share) and that of debentures was ksh 40,000. The investor opts to use constant value plan and fixes a revision point of 10%. The share prices show fluctuations at periodical intervals as under.

Period	Share price (ksh)
1	100(at the time of constructing the portfolio)
2	90

**Required ;**

Determine the portfolio value at the end of period 2. [8 marks]

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