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UNIVERSITY EXAMINATIONS

CHUKA / EMBU

FOURTH YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF COMMERCE / BACHELOR OF COOPERATIVE MANAGEMENT

BCOM 435: INVESTMENT AND PORTFOLIO MANAGEMENT

STREAMS: BCOM / BCOP Y4S2

TIME: 2 HOURS

DAY/DATE : WEDNESDAY 22 /09/ 2021 **2.30 PM – 4.30 PM**

INSTRUCTIONS TO CANDIDATES:

- Answer Question One and any other Two Questions.
- DO NOT WRITE ANYTHING on the question paper.

QUESTION ONE (30 MARKS)

(a) Discuss four aspects to be considered when making investment decision. [4 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 mater 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 directors of Ushirika Ltd have proposed to undertake two investment assets A and B. The finance department of the firm has estimated the following risk and return characteristics of the two assets.

Asset	A	B
Standard Deviation	3.5%	7.5%
Expected return	10%	18%
Beta	0.5	1.8

The company plans to invest 60% of its available budgetary allocation in asset A and the rest in B. The correlation coefficient between the returns on the two assets is positive 0.1. The treasuries are yielding 6% in the bond market.

Required:

(i) The covariance of the proposed portfolio of asset A and B. Interpret the implication of your result to an investor [3 Marks]

(ii) The portfolio standard deviation [3 Marks]

(iii) Suppose that the correlation between A and B was adjusted to -0.6. How should Unilever plc invest its funds in order to obtain minimum risk? [4 Marks]

(iv) Calculate Sharpe ratio for evaluating portfolio performance. [4 Marks]

QUESTION TWO

(a) Outline four benefits of investing in mutual funds [4 Marks]

(b) Consider the following data for a particular sample period

	Portfolio X	Market 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 portfolio X in relation to the market portfolio under the following measures:

(i) Treynor [3 Marks]

(ii) Jensen's alpha [3 Marks]

(iii) Information ratio [3 Marks]

c. An investor is evaluating three portfolios with the following characteristics:

Portfolio	Portfolio Expected 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. [7 Marks]

QUESTION THREE

(a) Explain the following terms as used in mutual fund investments

(i) Money market funds [2 Marks]
(ii) Balanced fund [2 Marks]
(iii) Index fund [2 Marks]

(b) A financial analyst is studying the bond market products at the NSE and comes across two bonds A and B. The face value on each bond is Sh.1,000 and both bonds are currently yielding 6%. The time to maturity on each bond is 5 years. Bond A is currently selling for Shs.878.50 on the bond market with 8% coupon rate. The next annual interest payment is due one year from today. Bond B is currently selling at Shs.975.80 and has a coupon rate of 7%. The approximate discount factor for investments of similar risk is 10%. Calculate the Maculay duration on each bond and interpret your results [8 Marks]

(c) XYZ Ltd has been paying average dividends of sh.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 intrinsic value of the share using the dividend growth model. [6 Marks]

QUESTION FOUR

(a) Explain the following bond management concepts

(i) Maculay Duration [2 Marks]

(ii) Straight bond [2 Marks]

(iii) Yield to maturity [2 Marks]

(b) A mutual fund that had a net asset value (NAV) of Ksh.100 at the beginning of the month, made income and capital gain distribution of Ksh.0.5 and ksh.0.4 per share respectively during the month and then ended the month with a NAV of Ksh.100.3. Calculate the monthly return on the fund. [2 Marks]

(c) Two portfolios were constructed at the end of first quarter of 2019, one consisting of ordinary shares and the other consisting of 10% corporate bonds. The value of ordinary shares, at the time of constructing the portfolio was Ksh.60,000/- (at the rate of Ksh.100/- per share) and that of bonds was Ksh.40,000/-. The investor opts to use constant value plan and fixes a revision point of 10%. The share prices at the end of April, May and June are Sh.90, Sh.85 and Sh.75 respectively. Determine the total portfolio value after revision at the end of June 2019.

[12 Marks]

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