



UNIVERSITY EXAMINATIONS

MAIN EXAMINATIONS

2020/2021 ACADEMIC YEAR

FOURTH YEAR FIRST SEMESTER

FOR THE DEGREE OF BACHELOR OF COMMERCE

COURSE CODE: BCF 407

COURSE TITLE: SECURITY ANALYSIS AND SECURITIZATION

DATE: 04/08/2021 TIME: 2.00PM-4.00PM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE (compulsory) and ANY OTHER TWO questions

QUESTION ONE

a)

Explain the significance of the assumption, at the heart of financial theory, that investors are 'risk averse'.

b)

The dividend valuation model ('DVM') suggests that share valuation is a function of expected future dividend payments. Explain why DVM is still useful for valuing the equity of non-dividend paying companies.

c)

Using the following data on portfolio weights of two assets A & B, explain and illustrate Harry Markowitz Portfolio Theory ;

| Time(T) | Weight (Asset A) | Weight (Asset B) | E[R] | VARIANCE (σ^2) |
|---------|-------------------|-------------------|------|-------------------------|
| 1 | 1 | 0.00 | 0.1 | 0.00680 |
| 2 | 0.8 | 0.20 | 0.12 | 0.00272 |
| 3 | 0.6 | 0.40 | 0.14 | 0.003232 |
| 4 | 0.5 | 0.50 | 0.15 | 0.00392 |
| 5 | 0.3 | 0.70 | 0.17 | 0.006253 |
| 6 | 0.2 | 0.80 | 0.18 | 0.00752 |
| 7 | 0.00 | 1.00 | 0.20 | 0.0121 |

[15

marks]

Q2.

a)

The following illustrates the market returns (M) and the returns from security (j)

| Time(T) | Returns Stock (j) % | Market returns (M) % |
|---------|-----------------------|------------------------|
| 1 | 10 | 12 |
| 2 | 15 | 14 |
| 3 | 18 | 10 |
| 4 | 14 | 9 |
| 5 | 10 | 13 |

Required;

Calculate Beta and explain its importance in portfolio analysis [10 marks]

b)

| Mutual Fund | Return (%) | SD (σ^2) (%) | Beta |
|-------------|------------|-----------------------|------|
| A | 14 | 11 | 0.90 |
| B | 17 | 20 | 1.03 |
| C | 19 | 27 | 1.20 |

Suppose that the 10-year annual return for the NSE 25 (market portfolio) is 10% while the average annual return on Treasury bills (a good proxy for the risk-free rate) is 5%.

Required;

Evaluate the performance of the mutual funds using Sharpe and Treynor measures. (10 marks)

QUESTION THREE

a)

Discuss the role of Covariance and Correlation in Portfolio construction [10 marks]

b) Explain the following;

i. Fundamental Analysis [5 marks]

ii. Industry Analysis [5 marks]

QUESTION FOUR

a) Discuss three forms of Market efficiency [12 marks]

b) Explain the role of Derivatives in Portfolio Construction. [8 marks]

QUESTION FIVE

a)

Find the portfolio return and risk

| STOCK | E[R] | WEIGHT | VARIANCE | SD |
|-------|------|--------|----------|------|
| A | 0.12 | 0.40 | 0.0064 | 0.08 |
| B | 0.18 | 0.60 | 0.60 | 0.01 |

Correlation (A, B) = 0.8

(10 marks)

b)

Explain four differences between 'private placings' and 'rights issues'.

(10 marks)