



# ELIZADE UNIVERSITY, ILARA-MOKIN, ONDO STATE

**FACULTY:** HUMANITIES, SOCIAL & MANAGEMENT SCIENCES  
**DEPARTMENT:** ACCOUNTING & FINANCE  
**FIRST SEMESTER EXAMINATIONS 2020/2021 ACADEMIC SESSION**

**COURSE CODE:** BFN 401

**COURSE TITLE:** CAPITAL MARKET AND PORTFOLIO THEORY

**DURATION:** 2 Hours 30 minutes

**INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS IN ALL**

## QUESTION 1

A. Write short note on the following terminologies:

- |                            |          |
|----------------------------|----------|
| Security                   | (1 mark) |
| Fixed income securities    | (1 mark) |
| Variable income securities | (1 mark) |
| Securities market          | (1 mark) |
| Listing                    | (1 mark) |
| Primary market             | (1 mark) |
| Secondary market           | (1 mark) |
| Initial public offer (IPO) | (1 mark) |

B. How is efficient market hypothesis different from Random walk theory? (2 marks)

C. Explain each of the three forms of efficient market hypothesis and the identify methods of testing for each of them (5 marks)

(Total = 15 marks)

## QUESTION 2

A. List and explain three benefits of investing in the capital market (3 marks)

B. Define capital market instruments (1 mark)

C. **Davidson Ltd** has two – security portfolios in the stock market of Ghana. Each security of portfolio has 50% weight each. The variance of security A is 6 while that of security B is 4. If the correlation coefficients in the portfolio are 1.0, 0.5 and –1.0 respectively, you are required to determine the diversification effect of the two – security portfolio (6 marks).

D. Write a short note on the historical development of the Nigerian capital market (3 marks)

E. Differentiate first-tier market from second tier security market (2 marks)

(Total =15 marks)

### QUESTION 3

- A. List and explain 5 conditions necessary for the growth of securities market (5 marks)
- B. Differentiate emerging market from frontier market (2 marks)
- C. An investment manager in **Abai Plc** has just created a portfolio in stock A and stock B. Stock A has an expected return (mean) of 20% and a weight of 30% in the portfolio. Stock B has an expected return of 15% and a weight of 70%. You are required to determine the expected return of the portfolio (2 marks).
- D. What is the essence of diversification in portfolio theory? (1 mark).
- E. List and explain various types of capital market instruments known to you (5 marks)

(Total= 15 marks)

### QUESTION 4

- A. What is capital market? (1 mark)
- B. Explain the difference between portfolio selection and efficient portfolio (2 marks)
- C. **Mr. Seriki** owns portfolio consisting of two financial and one non- financial security. While the analysis by a financial expert shows that each security return is completely not correlated with returns of the other securities, the returns however have joint probability distribution between 2013 and 2017 as follows:

| Year | Probability | Equity | Bond | Real Estate |
|------|-------------|--------|------|-------------|
| 2013 | 0.20        | 15     | 9    | 9           |
| 2014 | 0.30        | -2     | 6    | 8           |
| 2015 | 0.20        | 3      | 10   | 4           |
| 2016 | 0.13        | 5      | 18   | 10          |
| 2017 | 0.17        | 8      | 5    | 12          |

D. Required:

- E. i. Compute the portfolios expected return and risk if **Mr. Seriki** invested 33% in Bond, 30% in Equity and 37% in Real Estate (8 marks)
- F. What is the difference between risk and return (1 mark)
- G. What is beta? (2 marks)
- H. What is portfolio theory? (1 mark)

(Total= 15 marks)

### QUESTION 5

- A. **Buhari Plc** return on stock ( $R_i$ ) for the past five months and the market returns are given as follows

| Month | Stock return | Market return |
|-------|--------------|---------------|
| 1     | 15           | 5             |

|   |    |    |
|---|----|----|
| 2 | 10 | 3  |
| 3 | 13 | 11 |
| 4 | 16 | 7  |
| 5 | 6  | 1  |

**You are required to calculate:**

- (i) The expected return on the stocks (1 mark).
- (ii) The return on the market (1 mark)
- (iii) The variance of the market ( $\sigma^2_m$ ) (1 mark)
- (iv) The co-variance (1 mark)
- (v) Variance of the stock (1 mark)
- (vi) Coefficient of variation (1 mark)
- (vii) Beta ( $\beta$ ) (1 mark)
- (viii) The intercept (1 mark)
- (ix) Co-efficient of determination (1 mark)

B. Briefly explain the following terms:

- i. Positive correlation (1 mark)
- ii. Negative correlation (1 mark)
- iii. Neutral correlation (1 mark)
- iv. Absolute Risk Aversion (1 mark)
- v. Relative Risk Aversion (1 mark)
- vi. Portfolio variance (1 mark)

**(Total= 15 marks)**