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**University Examinations 2015/2016**

THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF COMMERCE AND BACHELOR OF PURCHASING AND SUPPLIES MANAGEMENT

**BFC 3379: INVESTMENTS AND ASSET MANAGEMENT/INVESTMENT ANALYSIS PORTFOLIO & MANAGEMENT**

**DATE: AUGUST 2016 TIME: 2HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30MARKS)**

Securities x and y have the following characteristics:

|  |  |  |  |
| --- | --- | --- | --- |
| Security X | | Security Y | |
| Return (%) | Probability | Return (%) | Probability |
| 30 | 0.1 | -20 | 0.05 |
| 20 | 0.2 | 10 | 0.25 |
| 10 | 0.4 | 20 | 0.30 |
| 5 | 0.2 | 30 | 0.30 |
| -10 | 0.1 | 40 | 0.10 |

Required:

1. Calculate the expected return and standard deviation of return for each security. Which security would you select for investment and why? (10 Marks)
2. Does diversification reduce the risk of investment? Explain with an example. (5 Marks)
3. Giving examples in each case, distinguish between systematic and unsystematic risk. (6 Marks)
4. Explain Security Market Line (SML) with the help of a figure. How does it differ from the Capital Market Line (CML)? (4 Marks)
5. How does Arbitrage Pricing Theory (APT) compare with Capital Asset Pricing Model (CAPM). (5 Marks)

**QUESTION TWO (20 MARKS)**

1. Explain how an efficient capital market differs from a perfect market. (3 Marks)
2. Differentiate between information efficiency and allocative efficiency. (3 Marks)
3. Explain the following terms:
4. Random Walk Theory
5. Fundamental analysis
6. Technical analysis (6 Marks)
7. A funds manager is considering the following portfolios for investment.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Portfolio | A | B | C | D | Market |
| Expected Return | 0.2 | 0.1 | 0.17 | 0.15 | 0.13 |
| Beta | 1.5 | 0.6 | 1.1 | 1.0 | 1.0 |
| Standard Deviation | 0.1 | 0.03 | 0.06 | 0.05 | 0.04 |

The government securities are earning a 7% rate of return

Required:

Compute Sharps and Treynor performance measures for each of the portfolios and also the market portfolio. Indicate which portfolios are efficient. (8 Marks)

**QUESTION THREE (20 MARKS)**

1. Distinguish between forward and futures contracts. (6 Marks)
2. Unga Limited Operations Manager plan to purchase 1000 tonnes of wheat in three months. The wheat price can be shs.70,000 or shs.80,000 per tone. The owner of the flower meal is worried about the possible change in price. How can he protect the company against the price risk? Show the consequences of your suggestion to him. (8 Marks)
3. Explain when a call option and a put option are in the money at the money and out of the money? (6 Marks)

**QUESTION FOUR (20 MARKS)**

The sunrise and sunset companies have the following probability distributions of returns:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Return (%) | |
| Economic condition | Probability | Sunrise | Sunset |
| High growth | 0.1 | 32 | 30 |
| Moderate growth | 0.2 | 20 | 17 |
| Slow growth | 0.4 | 14 | 6 |
| Stagnation | 0.2 | -5 | -12 |
| Decline | 0.1 | -10 | -16 |

Required:

1. Determine the covariance of returns. (8 Marks)
2. Determine correlation of returns between the two companies. (5 Marks)
3. Determine the variance of the portfolio formed assuming equal proportions are invested in both companies. (7 Marks)

**QUESTION FIVE (20 MARKS)**

The Finance Manager of Kasuku, a company listed in NSE, wishes to estimate the firm’s equity Beta factor. The firm is all equity financed and was listed in the NSE five years ago. You have gathered the following information for the last four years:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Average share price | Divided per share | Average NSE Index | NSE divided yield (%) | Returns on government stock (%) |
| 2010 | 69.5 | 3.5 | 2600 | 3 | 7 |
| 2011 | 73.5 | 4.25 | 2990 | 5 | 9 |
| 2012 | 81.5 | 4.5 | 3040 | 5.5 | 8 |
| 2013 | 92.5 | 5.0 | 3280 | 5.5 | 8 |

Required:

1. Determine the Beta of the company using CAPM. (12 Marks)
2. Many of the underlying assumptions of CAPM are violated in real world. Does this invalidate the models conclusion? Explain. (8 Marks)