**QUESTION ONE**

Assume that Stock A had an average return over a 5 year period of 11.3, with a standard deviation of 20.79. Stock B had an average return of 11.3, with a standard deviation of 20.78. The correlation between the returns of the 2 stocks is 0.88.   
  
If you formed a portfolio consisting of 50% Stock A and 50% Stock B, calculate

1. The average return and (3 mks)
2. The standard deviation for the portfolio (4 mks).
3. If you are a risk averse investor, would you prefer to invest all in Stock A, all in Stock B, or in the portfolio? Why? (2 mks)
4. You have recently been appointed chief investment officer of a major charitable foundation. Its large endowment fund is currently invested in a broadly diversified portfolio of stocks (60 percent) and bonds (40 percent). The foundation’s board of trustees is a group of prominent individuals whose knowledge of modern investment theory and practice is superficial. You decide a discussion of basic investment principles would be helpful. Explain the concepts of **systematic risk, covariance, standard deviation, and beta** as they relate to investment management. (16 mks)

**QUESTION TWO**

An analyst expects a risk-free return of 4.5 percent, a market return of 14.5 percent, and the returns for Stocks A and B that are shown in the following table.

|  |  |  |
| --- | --- | --- |
| STOCK | Beta | Analysts Estimated Return |
| A A | 1.2 | 16% |
| B B | 0 0.8 | 14% |

Show on a graph:

Where Stock A and B would plot on the security market line (SML) if they were fairly valued using the capital asset pricing model (CAPM) (4 mks)

Where Stock A and B actually plot on the same graph according to the returns estimated by the analyst and shown in the table [4 mks]

State whether Stock A and B are undervalued or overvalued if the analyst uses the SML for strategic investment decisions. [4 mks]

What do you understand by the term protective put? (3 mks)

**QUESTION THREE**

Discuss the Investment process, citing relevant examples from the stock market in Kenya and others around the world (15 mks)

**QUESTION FOUR**

* 1. Six factors affect the value of call options on stocks. Identify the factors and explain how and why changes in each of these factors affect the value of call options. (12 mks)
  2. Citing relevant example, discuss the concept of **put- call parity** (3 mks)

**QUESTION FIVE**

a) ‘There are some emerging trends that have changed the face of the contemporary investment environment’.

In light of the above statement, discuss the following.

* + 1. Globalization. (3 mks)
    2. Securitization.(3 mks)
    3. Financial engineering. (3 mks)
  1. Discuss the following types of market structures.
     1. Brokered market. (3 mks)
     2. Dealer market. (3 mks)

**QUESTION SIX**

a. Briefly explain the concept of the efficient market hypothesis (EMH) and each of its three forms**—**weak, semi strong, and strong**—**and briefly discuss three reasons that have been advanced to explain the existence of market inefficiency. (15 mks)