# Mid-West University <br> Examinations Management Office <br> Birendranagar, Surkhet <br> End Semester (Alternative/Physical) Examination-2078 <br> Bachelor of Business Administration (BBA) <br> Semester - IV 

You are required to answer in your own words as far as applicable.
Attempt all of the following Questions:

$$
5 \times 10=50
$$

1. What do you mean by feasible set and efficient frontier? How do you use indifference curve to locate the optimal portfolio on the efficient frontier? Explain.
2. a. You are considering an investment in the common stock of SS Trading limited. The stock is expected to pay a dividend of Rs 14 a share at the end of the year. The stock has a beta equal to 1.5 . The risk free rate is 6 percent and the market risk premium is 4 percent. The stock's dividend is expected to grow at some constant rate g. The stock currently sells for Rs 200 a share. Assuming the market is in equilibrium, what does the market believe regarding the stock price at the end of 3 years?
b. A bond is currently selling at its par value. The par value of bond is Rs 1000 , with 6 percent coupon rate. The maturity period of the bond is 3 years. Calculate the convexity of this bond. Why is the convexity calculated?
3. Considerer the following information of four stocks:

| Stocks | Shares | Price (Dec. 31, 2020 | Price (Jan.1, 2021 |
| :--- | :--- | :--- | :--- |
| 1 | 200 | Rs 300 | Rs 300 |
| 2 | 500 | 200 | 220 |
| 3 | 400 | 500 | 540 |
| 4 | 600 | 900 | 650 |

a. Calculate the price weighted average for the four stocks on Dec. 31, 2020.
b. What will be the value of divisor if stock 4 splits five for three on January 1, 2021?
c. Calculate the price weighted average for four stocks on January 1, 2021.
d. Calculate the value weighted index on December 31, 2020 assuming that the total market value of the stocks on base day was Rs 800,000 and the base period index was 100 .

## OR

Describe the major purpose of key regulations related to the securities market in Nepal.
4. Assume that you placed a Rs 1,000 investment with a mutual fund that charged an 8.5 percent load. Management and other fees charged by the fund total 1.1 percent per annum. Ignoring other cost, during five years, what annual return would the fund have to produce to the equal value that your initial investment would have earned in a saving account paying 5 percent interest? ( assume annual compounding of income and no taxes)
5. a. Assume two common stocks have the following betas:

$$
\begin{equation*}
\beta_{1}=1.2 \quad \beta_{2}=0.9 \tag{2.5}
\end{equation*}
$$

i. Calculate the beta for a portfolio consisting of equal rupee investments in each stock.
ii. An investor thought that a portfolio beta of 1.1 was appropriate; indicate the proportion of the funds that could be invested in both stocks to this portfolio.
b. Assume you wish to evaluate the risk and return behavior associated with the assets M and N .

| Assets | Expected return | Standard Deviation |
| :--- | :--- | :--- |
| M | $8 \%$ | $5 \%$ |
| N | $13 \%$ | $10 \%$ |

If the return of the assets M and N are perfectly negative correlated, what is the average return and standard deviation of the portfolio comprising 50 percent M and 50 percent N ?

## OR

Himal Company has bonds outstanding with a Rs 1,000 face value and 10 years left until maturity. The bond has an 11 percent annual coupon payment. The current price of the bond is Rs 1,175 . The bond may be called in 5 years at 109 percent of face value.
a. What is the yield to maturity of the bond?
b. What is the yield to call for the bond if it is called in 5 years?
c. Which yield might investors expect to earn on these bonds, and why?

## The End

