TRIBHUVAN UNIVERSITY

2081

B.B.S. (4 Yrs.)/ IV Year / MGMT

Fundamentals of Investment

(FIN-253) (New Course)

Full Marks: 100

Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Group "A"

Brief Answer Questions

Attempt ALL questions. [10×2=20]

1. State four money market vehicles.
2. Suppose you have a call option of Rs. 25 premium to buy share of Delta Company (DC) at Rs. 350 per share. Calculate value of call option (pay-off) and profits if the market price of Delta stock rises to Rs. 400 per share.
3. Assume that the risk-free rate is 6 percent and the market risk premium is 5 percent. What is the required rate of return on stock X with its beta of 1.30? Would you like to sell the stock X if its expected rate of return is 10 percent?
4. State major sources of risk.
5. Differentiate between open-end and closed-end funds.
6. What is the technical analysis of financial securities?
7. What are the major sources of investment information?
8. Write the meaning of fixed income securities.
9. What is term structure of interest rates?
10. Assume current market price of stock Y is Rs. 175, and constant growth rate is 10 percent. One convertible bond of Company Y can be converted into its 5 common stocks, what is the conversion value of the convertible present?

(1)

Group "B"

Descriptive Answer Questions [5×10=50]

Attempt any FIVE questions.

11. Gautam short sells 2,000 stocks at Rs. 100 per share. The initial margin requirement is 60 percent and maintenance margin is 30 percent

a. What would be Gautam's amount of margin equity and margin loan if stock price rises to Rs. 115 per share?

b. What is the margin call price of stock? Would Gautam receive margin call if the market stock price rises to Rs. 115 per share?

c. What is Gautam's rate of return from short sells of stock if stock price falls to Rs. 80 per share assuming no interest on margin?

[4+3+3]

12. The current dividend on common stock of Alpha Company (AC) is Rs. 12 per share. The required rate of return on common stock of the company is 16 percent

a. What is the present value of the Alpha's stock if the constant growth rate of earnings is 9 percent per year forever?

b. Suppose growth rates of earnings of the company are not constant. Growth rate of earnings of Alpha stock is 10 percent for the first three years and 6 percent thereafter. What would be the present value of the stock?

[4+6]

13. The composition and information of shares and prices of Artificial Fund Portfolio are given below:

Stocks	Number of shares	Price per share (Rs.)
K	2,000	120
L	3,000	140
M	4,000	150
N	5,000	110

The fund has accrued management fee obligation of Rs. 100,000. There are 50,000 shares outstanding.

a. What is the net assets value of the Artificial fund?

b. What is the percentage of premium or discount if the fund is currently selling in the market at Rs. 32 per share? [5+5]

(R)

P.T.O.

14. Consider the following three stocks given in the following Table. Q represents number of shares and P represents price of stock.

Stocks	Day 0		Day 1		Day 2	
	Q_0	P_0 (Rs.)	Q_1	P_1 (Rs.)	Q_2	P_2 (Rs.)
Alpha	200	80	200	90	200	110
Beta	300	100	300	110	600	65
Gamma	400	120	400	130	400	120

Stock Beta splits two-for-one on day 2.

a. Calculate price weighted indexes (PWI) for Day 0, Day 1 and Day 2.
b. What would be return for the day 1 based on PWI?
c. Calculate value weighted indexes (VWI) for Day 1 and Day 2, assume base index is 100.
d. What would be rate of returns for day 2 based on value weighted index? [4+1+4+1]

15. Consider the following information of portfolios A, B and C:

Portfolios	Average portfolio return (%)	Standard deviations (%)	Beta
A	16	12	1.15
B	14	5	1.05
C	11	7	0.80

Assume risk free rate is 5 percent.

a. Estimate Sharpe's indexes.
b. Estimate Treynor's indexes.
c. Interpret your results.
d. Would you prefer Treynor's measures rather than Sharpe's measures for portfolio performance evaluation? [3+3+2+2]

16. Describe the investment processes for financial assets in Nepal. [10]

Group "C"

Analytical Answer Questions [2×15=30]

Attempt any TWO questions.

17. Describe present investment environment in Nepal. Discuss the different types of security markets in Nepal. [7+8]

18. Consider the following probability distribution and returns of stock M and stock N:

State of Economy	Probability	Return of stock M (%)	Return of stock N (%)
First	0.30	10	35
Second	0.40	15	15
Third	0.30	20	(5)

a. Calculate expected returns of stock M and stock N.
b. Estimate standard deviations of stock M and stock N.
c. Calculate coefficient of variations of stock M and stock N. Which stock would you prefer to invest?
d. Compute the correlation coefficient between returns of stock M and stock N.
e. If you form a portfolio with your investment of 45 percent funds in stock M and 55 percent funds in stock N, calculate the expected portfolio return and risk. [2+3.5+2+3.5+4]

19. An 11 percent coupon bond of Rs. 1,000 par has 5 years maturity. The bond is currently selling in the market at Rs. 950 per bond. Assume coupon is paid annually.

a. What is the current yield of the bond?
b. What is the yield to maturity of the bond?
c. What is the capital gain of the bond?
d. Would you prefer to buy the bond at current prevailing price of Rs. 950 if your required rate of return is 12 percent?
e. Differentiate between yield to maturity and yield to call of the bond. [2+5+2+3+3]

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