Hall Ticket No ☐☐☐☐☐☐☐☐☐☐

Question Paper Code: CMB404

INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
MBA III Semester End Examinations (Regular) - November, 2018
Regulation: IARE–R16
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

Time: 3 Hours   (MBA)   Max Marks: **70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

UNIT – I

1. (a) Define investment. Explain the attributes that one should consider while evaluating an investment. **[7M]**

   (b) Would you expect that fundamental security analysis make security markets more efficient? Why? **[7M]**

2. (a) Define a primary and secondary market for securities and explain how primary market is dependent on secondary market. **[7M]**

   (b) Explain Dow Theory and its three components. Which component is most important? What is the reason for an intermediate reversal? **[7M]**

UNIT – II

3. (a) Why should the expected return for a security be directly related to the security's covariance with the market portfolio? **[7M]**

   (b) Your rate of return expectations for the common stock of Gray Disc Company during the next year are given in Table 1. **[7M]**

   i. Compute the expected return on this investment, the variance of this return, and the standard deviation.

   ii. Under what conditions can the standard deviation be used to measure the relative risk of two investments?

   iii. Under what conditions the coefficient of variation must be used to measure the relative risk of two investments?

Table 1

Possible Rate of Return	Probability
-0.10	0.25
0.00	0.15
0.10	0.35
0.25	0.25

4. (a) How is beta derived from a security's market model? Why high beta securities are termed "aggressive"? Why are low beta securities termed "defensive"?   **[7M]**

   (b) Based on a one-factor model, assume that the risk-free rate is 6% and the expected return on a portfolio with unit sensitivity to the factor is 8.5%. consider a portfolio of two securities with the following characteristics given in Table 2:   **[7M]**

Table 2

security	Factor sensitivity	Proportion
A	4.0	0.3
B	2.6	0.7

UNIT – III

5. (a) Explain why immunization permits a bond investor to be confident of meeting a given liability on a predetermined future date.   **[7M]**

   (b) You are considering investing in one of the following bonds in Table 3. Your income tax rate is 30% and your capital gain tax is effectively 10%. Capital gains taxes are paid at the time of maturity on the difference between the purchase price and par value. What is your post-tax yield to maturity from these bonds?   **[7M]**

Table 3

	Coupon rate	Maturity	Price/Rs.100 par value
Bond A	12%	10 yrs	Rs.70
Bond B	10%	6 yrs	Rs.60

6. (a) How is the price of a bond determined? Why is this process relatively straight forward for a bond?   **[7M]**

   (b) A Zero-coupon bond of Rs. 10,000 has a term to maturity of eight years and a market yield of 10 percent at the time of issue.   **[7M]**
       i. What is the issue price?
       ii. What is the duration of the bond?
       iii. What is the modified duration of the bond?
       iv. What will be the percentage change in the price of the bond, if the yield declines by 0.5 percentage points (50 basis points)?

UNIT – IV

7. (a) Explain the option trading strategies in detail.   **[7M]**

   (b) The commonwealth corporation's earnings and dividends have been growing at the rate of 12% p.a. This growth rate is expected to continue for 4 years. After that the growth rate would fall to 8% for the next four years. Beyond that the growth rate is expected to be 5% forever. If the last dividend was Rs. 1.50 and the investor's required rate of return on the stock of commonwealth is 14%, how much should be the market value per share of commonwealth corporation's equity stock?   **[7M]**

8. (a) A stock is currently selling for Rs. 60. The call option on the stock exercisable a year from now at an exercise price of Rs.55 is currently selling for Rs. 15. The risk-free interest rate is 12%. The stock can either rise or fall after a year. It can fall by 30%. By what percent can it rise? **[7M]**

(b) Straddles have been described as "volatility plays". Explain what this means for both long and short straddle positions. Given the fact that volatility is a primary factor in how options are priced, under what conditions might an investor who believes that markets are efficient ever want to create a straddle? **[7M]**

UNIT – V

9. (a) Should you care about how well mutual fund is diversified? Why or why not? **[7M]**

(b) The AMC mutual fund has sold 1,50,000 shares to investors. Currently the fund has accrued investment management fee obligations of Rs. 50,000. The fund's portfolio is shown in Tbale 4. Calculate the fund's net asset value **[7M]**

Table 4

Stock	Shares	Price/share
A	50,000	10
B	20,000	7
C	35,000	30
D	10,000	100

10. (a) There are literally hundreds of mutual funds available for purchase. Describe what criteria you might use in selecting from among these many funds. **[7M]**

(b) The following portfolios shown in Table 5 are being considered for investment. During the period under consideration, RFR = 0.07. Compute the Sharpe measure for each portfolio and the market portfolio. Compute the Treynor measure for each portfolio and the market portfolio. Rank the portfolios using each measure, explaining the cause for any differences you find in the rankings. **[7M]**

Table 5

Portfolio	Return	Beta	p
P	0.15	1.0	0.05
Q	0.20	1.5	0.10
R	0.10	0.6	0.03
S	0.17	1.1	0.06
Market	0.13	1.0	0.04