



COM 32 – FINANCIAL AND INVESTMENT & PORTFOLIO MANAGEMENT

Answer all questions

Each question carries equal marks.

Calculators are permitted

Time: Three Hours

01. i) Briefly explain the key decisions taken by the financial manager (06 Marks)
- ii) “Individual has a preference for possession of a given amount of money now, rather than the same amount at some future time”. Why? Give reasons (02 Marks)
- iii) If you deposit Rs. 5000 at the beginning of each year at a compounding interest rate of 12%, What will be the future value at the end of fifth year? (03 Marks)
- iv) What is the future value of Rs. 50,000 invested for 10 years with quarterly compounding at 8%? And what is the effective interest rate? (04 Marks)
- v) Your sister is to be entering University. Your father had opened a saving account for your sister when she born 20 years ago. He deposited Rs 5000 initially, if the balance is now Rs 19348.42. What average compounded rate of return has been earned? (03 Marks)
- vi) What do you mean by source of finance? List out (02 Marks)
- (Total 20 Marks)

02. i) You need a loan of Rs. 200,000 and would like to make payments for 2 years. If a bank has offered a 12% interest rate on the loan, what will your monthly payment be? (03 Marks)
- (ii) The government is decided to sell a 4 years bond of Rs. 1000 at 10% rate of interest per annum. The bond amount will be amortised equally over its life. If an investor has a

minimum required rate of return of 12%, how much can you pay to purchase the bond today? (04 Marks)

iii) X Company's earnings and dividend growth prospects are disputed by analysts. Mr. Amal is forecasting 5% growth in dividends indefinitely. However, Mr. Ajmal predicting 10% growth in dividends but only for next four years, after which the growth rate is expected to decline to 5% for the indefinite future. X Company's dividend per share is currently Rs. 5.00, Its Beta is 1.5, Average risk free rate of return of the economy is 6%, Average market rate of return is 12%.

a. What is the expected return required by the investors for common stocks of X Company. (02 Marks)

b. Mr. Amal is intending to buy stock of X Company at price of Rs. 65. Is it advisable? ((02Marks)

c. What is the value of the stock of X Company according to Mr. Ajmal? (05 Marks)

iv) A Rs. 1000 face value bond has a current market price of RS.980. Five years remain to maturity and the bond is repaid at par. Interest payments are made semiannually and coupon rate is 12%. Calculate yield to maturity. (04 Marks)

**(Total 20 Marks)**

03. i) A company is faced with the problem of choosing one project from the following two projects. Project A required an initial investment of Rs. 200,000 and operating expenses of Rs. 70, 000 per year. Project B required an initial investment of Rs. 300,000 and operating expenses of Rs. 40,000 per year for the next 8 years. Both projects have 8 years of expected life time and project A has a expected scrap value of Rs. 8000 while project B has a scrap value of Rs. 28,000. The company's tax rate 50% and cost of capital is 10%. Assume depreciation on straight line basis and no tax on scrape value of assets. Which project should be selected? (07 Marks)

ii) "As a company grows, its marginal cost of capital will be below the average cost of capital" Do you agree with this statement? Explain briefly. (03 Marks)



- iii) A company is considering the possibility of raising Rs. 1,200, 000 by issuing debentures, preference and equity shares for investing in a project. The expected maximum rate of return from the project is 20%. The book value and the market value are as follows.

	Book value (Rs)	Market value(Rs)
Ordinary shares	400, 000	600, 000
Preference shares	200, 000	240, 000
Debentures	300, 000	360, 000
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Total	900, 000	1200, 000

Following costs are expected to be associated with the above mentioned issues of capital. (Assume a 50% tax rate)

The firm can sell 16% debentures with a nominal value of Rs. 100 and the issue cost will be 2% of the nominal value.

11% preference shares will be sold at Rs. 120, with the nominal value of Rs. 100 and the Firm will have to pay Rs 7.25 for each share, as a issue cost.

The firm's ordinary share is currently selling for Rs 150. It is expected that the Firm will pay a dividend of Rs. 12 per share at the end of the next year which is expected to grow at a rate of 7%. But the new ordinary shares can be sold at a price of Rs. 145; the issue cost will be Rs. 5 per share.

a) Compute the weighted average cost of capital on the basis of market value.

(08 Marks)

b) Should the project be accepted give reasons?

(02 Marks)

**(Total 20 Marks)**

04. i) Define financial market, why it is important in an economy? (03 Marks)

ii) Differentiate the following;

- Capital market and Money market.
- Technical analysis and fundamental analysis.
- Weak form of efficiency and strong form of efficiency.
- Financial assets and Real assets

- e. Systematic risk and unsystematic risk.
- f. Security market line and capital market line.
- g. Efficient portfolios and optimal portfolio. (14 Marks)

iii) Consider an investment that cost Rs. 325,500 and is worth Rs. 420,000 after being held for three years. What is the annual holding period yield? (03 Marks)

(Total 20 Marks)

05. i) Consider the following data of Stock A and stock B.

Return rate of Stock A%	Possibility for the return of stock A	Return rate of Stock B%	Possibility for the return of stock B
5	0.35	-5	0.10
8	0.30	5	0.45
10	0.25	15	0.25
15	0.10	30	0.20

- a. Compute the expected return for the two stocks separately. Which stock is most desirable by this measure? (03 marks)
  - b. Compute the standard deviation for the two stocks separately. Which stock is desirable by this measure? (06 Marks)
  - c. Compute the coefficient of variation for each stock. Which stock is desirable by this measure? (03 marks)
- ii) Consider a portfolio with 3 securities A, B, and C. the proportion of investment in each of these securities are 25%, 50%, and 25% respectively. The correlation matrix is given below.

Security name	A	B	C
A	1.0	-1.0	0.6
B	-1.0	1.0	0.3
C	0.6	0.3	1.0

Risk and return rates are follows.

Stock name	Return rate%	Risk%
A	10%	09%
B	15%	10%
C	20%	12%

You are required to calculate;

- Expected return of portfolio. (01 Mark)
- Variance, covariance matrix. (03 marks)
- Standard deviation of this portfolio. (04 Marks)

**(Total 20 Marks)**