

Time: Three Hours

Answer all Questions

Non-Programmable calculator is permitted.

- a) Briefly explain the role of Financial Manager in making Financial Management Decisions of an organization. (02 Marks)
- b) Company "A" purchases a machinery for Rs.800, 000 by making a down payment of Rs.130, 000 and remainder in equal installments of Rs.150, 000 for six years.
What is the rate of interest of the above company? (02 Marks)
- c) A person plans to retire in 10 years and she wants to build her wealth of Rs. 100,000 through annual savings. Money can be invested to yield interest of 14 percent per year.
How much will she have to set aside at the end of the next 10 years in order to achieve her objective? (03 Marks)
- d) Mr. Ravi has planned to make a series of deposits in an interest bearing account, he will deposit Rs.1000 today, Rs.2000 in two years and Rs.8000 in five years. If he withdraws Rs.3000 in three years and Rs.5000 in seven years.
How much will he has after eight years if the interest rate is 9 percent? (05 Marks)
- e) Suppose you borrow Rs. 500,000 from the Bank. You are going to repay the loan by making equal payments for five years. The interest rate on the loan is 10 percent per year.
- (i) **Prepare an amortization schedule for the loan.**
- (ii) **How much interest will you pay over the life of the loan?** (08 Marks)

(Total 20 Marks)

Q2 a) Briefly explain **Systematic and Unsystematic risks** by using real examples.

(04 Marks)

b) An investor holds two equity shares X and Y in equal proportion with the following risk and return characteristics:

$$E(R_x) = 24\%$$

$$E(R_y) = 19\%$$

$$\sigma_x = 28\%$$

$$\sigma_y = 23\%$$

The returns of these securities have a positive correlation of 0.6. Further suppose the investor wants to reduce the portfolio risk (σ_p) to 15 percent.

- (i) Calculate the **portfolio return and risk** of equity shares of X and Y.
- (ii) How much should the **correlation coefficient** to bring the portfolio risk to the desired level?

(06 Marks)

c) The stock of Sunrise Ltd. performs well relative to other stocks during high growth period. On the other hand, the stock of Sunset Ltd. does well during slow growth periods. Rate of return on these stocks for the next year are estimated as follows:

Economic Conditions	Return on Sunrise (%)	Return on Sunset (%)	Probability
High Growth	32	30	0.1
Normal Growth	20	17	0.2
Slow Growth	14	16	0.4
Stagnation	-5	-12	0.2
Decline	-10	-16	0.1

- (i) Calculate the **expected rate of return** and **standard deviation** for the Sunrise and Sunset companies separately.
- (ii) Calculate the **coefficient of variation** for both companies.

(10 Marks)

(Total 20 Marks)

a) Briefly describe the importance of **valuation of securities** for the financial decision making process of an organization?

(03 Marks)

b) Raja company proposes to sell 5 years debentures of Rs.50, 000 each. The company would repay Rs.2000 at the end of every year and will pay 10 percent interest annually on the standing amount.

You are required to determine the present value of the debenture issue if the capitalization rate is 24 percent.

(08 Marks)

c) Company XYZ is currently paying a dividend of Rs.20 per share. The dividend is expected to grow at a 15 percent annual rate for three years then 8 percent rate for the next three years, after which it is expected to grow at a 5 percent rate forever.

What is the present value of the share if the capitalization rate is 9 percent?

(09 Marks)

(Total 20 Marks)

4 a) Briefly explain the **three stages of the Traditional Approach** to make a capital structure decision of an organization.

(05 Marks)

b) The Kannan company is expected to grow at 9 percent per year in the future. The Kannan's common stock sells for Rs.250 per share and its last dividend was Rs.56.

(i) Calculate the **cost of equity** by using the **discounted cash flow approach**.

(ii) If the company's beta is 1.5, the risk free rate is 10 percent and the expected return on the market is 15 percent. What will be the **company's cost of equity using the CAPM approach?**

(05 Marks)

c) Shankar Corporation has no debt in its capital structure. It has an expected annual net operating income of Rs.500, 000 and the equity capitalization rate (K_e) of 10 percent. The company is also considering to change its capital structure replacing equity by debentures of Rs.200, 000 at 5 percent interest rate. The cost of equity is expected to increase to 10.56 percent. The company is also considering the alternative of raising perpetual debentures of Rs. 600,000.

The debt-holders will charge interest of 6 percent and the cost of equity will rise to 12.5 percent to compensate shareholders for higher financial risk.

- (i) Calculate the **value of Shankar Corporation by using traditional approach.**
- (ii) Calculate the **weighted average cost of capital** of the above company.

(10 Marks)

(Total 20 Marks)

Q5 a) Briefly describe the **merits and demerits of using Discounted Cash Flow Methods** in an organization.

(05 Marks)

b) The Sun company is considering two mutually exclusive projects. Both require an initial outlay of Rs.100,000 each and have a life of five years. The company's rate of return 15% and pays tax at 50%. The projects will be depreciated on a straight line basis.

The before taxes earnings expected to be generated by the projects are as follows:

Year	Project A	Project B
1	50,000	40,000
2	30,000	20,000
3	30,000	30,000
4	30,000	50,000
5	30,000	50,000

You are required to calculate the following for the project A and B separately.

- (i) **Accounting Rate of Return**
- (ii) **Payback Period**
- (iii) **Discounted Payback Period**
- (iv) **Net Present Value**
- (v) **Internal Rate of Return**
- (vi) **Which project should be accepted? Justify your answer.**

(15 Marks)

(Total 20 Marks)

Important Formulas:

$$1. E(R) = \sum_{i=1}^n P_i R_i$$

$$2. \sigma = \sqrt{\sum_{i=1}^n \sum_{j=1}^n (R_i - E(R))(R_j - E(R)) P_{ij}}$$

$$3. C.V = \frac{\sigma}{x} \times 100$$

$$4. E(R_i) = R_f + \beta_j (R_m - R_f)$$

$$5. WACC = W_d K_d (1-t) + W_p K_p + W_e K_e$$

$$6. K_e = D_1/P_0 + g$$

$$7. FV_{OA} = \frac{PMT [(1+i)^n - 1]}{i}$$

$$8. PV_{OA} = \frac{PMT [1 - (1+i)^{-n}]}{i}$$

$$9. ARR = \frac{[\sum_{t=1}^n EBIT_t (1-T)]/n}{(I_0 + I_n)/2}$$

$$10. IRR = LR + \frac{NPV @ LR}{NPV @ LR - NPV @ HR} \times (HR - LR)$$