



First Term Exam-2071

Level: MBS-I

Subject: Managerial Finance

F.M.: 50

Time: 2:00 Hrs.

P.M.: 20

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

Group A

Short answer questions

Attempt any **THREE** questions.

[30]

1. Explain agency relationship and problem. Suggest some ways to resolve the conflict between shareholders and managers in a corporation.
2. IRT manufacturing company's most recent income statement is given below:

| Particulars | Amount |
|------------------------------------|--------------|
| Sales | Rs.1,000,000 |
| Less: Variable Costs | 200,000 |
| Contribution Margin | 800,000 |
| Less: Fixed Costs | 400,000 |
| EBIT | 400,000 |
| Less: Interest Expenses | 200,000 |
| EBT | 200,000 |
| Less: Taxes @ 40% | 80,000 |
| Net Income | 120,000 |
| Less: Preferred Stock Dividend | 80,000 |
| Income Available to Equity Holders | 40,000 |

- a. Calculate the DOL, DFL and DCL of IRT.
 - b. What will be the income available to equity holders if sales doubles?
 - c. Suggest some ways to minimize the total risk of IRT.
3. Presidential Transport Company (PTC) is planning to raise Rs.500,000 to finance its proposed expansion project. PTC can issue 10 percent coupon bonds in the market at face value. The preferred stocks having 12percent dividend rate can also be

sold at face value. PTC has Rs.150,000 of retained earnings available. The common stocks of PTC are currently trading at Rs.100 per share. To raise capital from external equity, new shares can be sold at a discounted price of Rs.90 per share. Also, PTC should incur floatation cost of Rs.5 per share. PTC is expected to pay dividend of Rs.10 per share which is expected to grow by 5% indefinitely. PTC's target capital structure consists of 50 percent equity, 30 percent debt and 20 percent preferred stock. It's corporate tax rate is 30%.

- a. Calculate the cost of different components of PTC's capital.
 - b. Calculate the associated break point.
 - c. Calculate the cost of PTC's financing need for its proposed expansion. (hint: consider the difference in cost below and above the break point)
4. Write short notes on: (any two)
 - a. The finance functions
 - b. Adjusting cost of capital for risk
 - c. Factors affecting financial structure

Group B

Comprehensive answer questions

[20]

Attempt any **ONE** question

5. Consider the following two mutually exclusive projects:

| Year | Cash Flow (project X) | Cash Flow (project Y) |
|------|-----------------------|-----------------------|
| 0 | (Rs.10,000) | (Rs.10,000) |
| 1 | 5,400 | 4,500 |
| 2 | 3,400 | 3,600 |
| 3 | 4,500 | 5,400 |

- a. Sketch the NPV profiles for projects X and Y over a range of discount rates from zero to 25 percent.
- b. Identify the IRR for the two projects from NPV profiles in part a.

- c. What is the actual cross over rate for these two projects?
 - d. Which project would you select if the cost of capital is 5%? 23%?
 - e. Explain why NPV and IRR sometimes give conflicting decision in case of mutually exclusive projects.
6. ABC Company is trying to replace one of its existing machines by new one. The old machine was purchased 5 years ago at a cost of Rs.100,000. At the time of purchase, its estimated life was 10 years and estimated salvage value at the end of 10 years was zero. The machine can be sold today to realize Rs.70,000. It can be used for its remaining life at the end of which it can be sold at Rs.10,000. The use of current machine requires the firm to maintain a net working capital of Rs.50,000. The new machine costs Rs.150,000. The firm should spend additional Rs.40,000 to transport and install the machine. The purchase of machine provides the firm with an advantage of investment tax credit of 20%. The new machine has a shorter production cycle. So the net working capital requirement of the company can be reduced to Rs.35,000 if the new machine is installed. The machine falls in the 5-year property class for calculating depreciation using MACRS for tax purpose. The machine has a useful life of 5 years at the end of which it can be sold at Rs.5,000. The use of machine is expected to increase annual sales revenue by Rs.25,000 and reduce cash operating expenses by Rs.22,000. The corporate tax rate is 25% and the cost of capital required for replacement of the machine is 10%.
- a. Calculate the relevant cash flows of the replacement project.
 - b. Should the firm make the replacement?