

I Semester M.Com. Examination, January 2017 (CBCS) COMMERCE

Paper - 1.5 : Advanced Financial Management

Time: 3 Hours

Max. Marks: 70

SECTION - A

- Answer any seven questions out of ten. Each question carries two marks. (7x2=14)
 - a) Discuss Arbitrage process.
 - b) Explain value of the firm.
 - c) Define opportunity cost of capital.
 - d) Explain decision tree.
 - e) Define 'time value of money'.
 - f) Explain utility theory.
 - g) Discuss the significance of P/E ratio
 - h) What is Leveraged buyout?
 - Define a 'futures' contract.
 - j) Explain the difference between fatures and options.

SECTION-B

Answer any four questions out of six. Each question carries five marks.

(4×5=20)

- Define strategic financial management. State three examples of strategic financial decisions.
- Discuss the use of sensitive analysis in risk evaluation.
- 4. Critically examine NPV and IRR. Do they give identical results?
- 5. Companies U and L are identical in every respect except that the former does not use debt in its capital structure, while the latter employs Rs. 6 lakh 10% debt. Assuming that (i) all the M-M assumptions are met, (ii) the corporate tax rate is 35%, (iii) the EBIT is Rs. 1,20,000, and (iv) the equity capitalization of the unleveled company is 0.20. What will be the value of the firms U and L?

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- 6. A company is faced with the problem of choosing between two mutually exclusive projects. Project X requires a cash outlay of Rs. 1,00,000 and cash running expenses of Rs. 30,000 per year. On the other hand project Y requires a cash outlay of Rs. 1,50,000 and running expenses of Rs. 20,000 per year. Both the projects have a eight year life. Project X has a salvage value of Rs. 4,000 and project Y has Rs. 14,000. The company's required rate of return is 10%. Assume the corporate tax rate is 50% and the depreciation of the project is on straight line basis. On a differential basis which project should be accepted?
- A particular put is the option to sell stock at Rs. 40. It expires after 3 months and currently sells for Rs. 2 when the price of the stock is Rs. 42.
 - i) If an investor buys this put, what will the profit be after three months if the price of the stock is Rs. 45, Rs. 40 and Rs. 35?
 - ii) What will the profit be from selling this put after three months if the price of the stock is Rs. 45, Rs. 40 and Rs. 35 ?

SECTION-C

Answer any three out of five. Each question carries twelve marks.

(3×12=36)

- 8. Explain the different Hedging instruments and their features.
- 9. What is optimal capital structure and discuss the cost of capital behavior in Traditional approach?
- A firm has Rs. 6,00,000 available for investment. The investment opportunities available are as follows:

| ivaliable c | ing distribution. | |
|-------------|---------------------|------|
| roposal | Cost of the Project | IRR% |
| 1 | 2,00,000 | 7 |
| 2 | 2,30,000 | 8 |
| 3 | 2,00,000 | 9 |
| 4 | 2,00,000 | 23 |
| 5 | 1,20,000 | 19 |
| 6 | 1,50,000 | 17 |
| 7 | 90,000 | 16 |
| 8 | 3,00,000 | 13 |
| 9 | 3,60,000 | 12 |
| 10 | 5,00,000 | 11 |
| | | |

The firms cost of capital is 10%. Select the best proposals among 10 proposals based on Internal Rate of Return.



11. A company is considering two mutually exclusive projects X and Y. Project X cost Rs. 30,000 and Project Y Rs. 36,000. You have been given below the net present value and probability distribution for each project:

| Pro | ject X | Projec | ct Y |
|---------------------|-------------|---------------------|-------------|
| NPV Estimate | Probability | NPV Estimate | Probability |
| Rs. | | Rs. | |
| 3,000 | 0.1 | 3,000 | 0.2 |
| 6,000 | 0.4 | 6,000 | 0.3 |
| 12,000 | 0.4 | 12,000 | 0.3 |
| 15,000 | 0.1 | 15,000 | 0.2 |

- a) Compute the expected net present value of projects X and Y.
- b) Compute the risk attached to each project that is, standard deviation of each probability distribution.
- c) Which project do you consider more risky and why?
- Reliance Ltd. wishes to acquire Raja Ltd., a small company with food growth prospects. The relevant information both the companies is as follows:

| Company | Equity shares | Share price | Earnings after | EPS |
|---------------|---------------|-------------|----------------|------------|
| | outstanding | (Rs.) | taxes | (Rs.) |
| Reliance Ltd. | 10,00,000 | 25 | 20,00,000 | 2 |
| Raja Ltd. | 1,00,000 | 10 | 2,00,000 | 2 |

Reliance Ltd. is considering 3 different acquisition plans :

- a) Pay Rs. 12.5 per share for each target share.
- Exchange Rs. 25 cash and one share of Reliance Ltd. for every four shares of Raja Ltd.
- c) Exchange 1 share for every two shares of Raja Ltd. ·
 - i) What will Reliance EPS be under each of the three plans?
 - ii) What will the share prices of Reliance be under each of the three plans, if its current P/E ratio remains unchanged?



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SECTION-A

Answer any seven sub questions. Each sub question carries 2 marks. (7x2=14)

a) Define Finance.

- b) What are European Options?
- c) What do you mean by Synergy?
- d) What are the essentials of Sound Capital Mix?
- e) What do you mean by Investment Timing?
- f) What is Bailout Takeover?
- g) What do you mean by Back to Back loan in Swaps ?
- h) What is Decision Tree Analysis?
- i) What is hostile takeover?
- j) What is Implicit Reinvestment Rate?

SECTION-B

Answer any four questions; each question carries 5 marks.

 $(4 \times 5 = 20)$

The investment data of A Company Limited launching a new product and with 10 percent cost of capital, is as follows:

| Particulars | Amount (₹) |
|-----------------------|------------|
| Investment ₹ | 7,00,000 |
| Cash Flow After Tax : | ₹ 1111 |
| 1 | 5,00,000 |
| 2 | 4,00,000 |
| 3 | 2,00,000 |
| ST(6) 4 = 8 | 1,00,000 |
| 5 | 1,00,000 |

Assuming an inflation rate of 5 percent, determine NPV of the project by using both the nominal rate of discount and the real rate of discount.



- 3. Briefly explain the participants of Derivatives Market in India.
- 'Conglomerate firm shares tend to have a higher market value due to lower cost of capital'. Elucidate the statement.
- 5. What are the critical factors to be observed while making capital budgeting decisions under capital rationing?
- Paramount Products Ltd. wants to raise Rs. 100 lakh for diversification project.
 Current estimates of EBIT from the new project are Rs. 22 lakh p.a.

Cost of debt will be 15% for amounts up to and including Rs. 40 lakh, 16% for additional amounts up to and including Rs. 50 lakh and 18% for additional amounts above Rs. 50 lakh. The equity shares (face value of Rs. 10) of the company have a current market value of Rs. 40. This is expected to fall to Rs. 32 if debts exceeding Rs. 50 lakh are raised. The following options are under consideration of the company.

| Option | Debt | Equity |
|--------|------|--------|
| (i) | 50% | 50% |
| (ii) | 40% | 60% |
| (iii) | 60% | 40% |

Determine EPS for each option and state which option should be Company Adopt. Tax rate is 50%.

7. There are two firms 'A' and 'B' which are exactly identical except that A does not use any debt in its financing, while B has Rs. 2,50,000, 6% debentures in its financing. Both the firms have earnings before interest and tax of Rs. 75,000 and the equity capitalization rate is 10%. Assuming the corporation tax is 50%, calculate the value of the firm.

SECTION-C

Answer any three questions; each question carries 12 marks.

(3×12=36)

- 8. Write a critical note on Capital Structure Theories.
- 9. What are Derivatives ? How Future and Options Contracts are priced ?



 A company with a 12 percent of cost of funds and limited investment funds of Rs. 4,00,000 is evaluating the desirability of several investment proposals.

| Project | Initial Investment (₹) | Life (in years) | Year-end Cash Inflow (₹) |
|---------|------------------------|-----------------|--------------------------|
| Α | 3,00,000 | 2 | 1,87,600 |
| В | 2,00,000 | 5 | 66,000 |
| C | 2,00,000 | 3 | 1,00,000 |
| D | 1,00,000 | 9 | 20,000 |
| E | 3,00,000 | 10 | 66,000 |

- i) Rank the projects according to the profitability index, and NPV methods.
- ii) Determine the optimal investment package.
- iii) Which projects should be selected, if the company has Rs. 5,00,000 as the size of its capital budget?
- Determine the optimal investment package in the above situations, assuming that the projects are divisible.
- 11. Mr. Agni is considering an investment proposal of As. 80,000. The expected returns during the life of the investment are as under:

Year I

| Event | Cash Inflow (₹) | Probability |
|-------|-----------------|-------------|
| (i) | 32,000 | 0.3 |
| (ii) | 48,000 | 0.3 |
| (iii) | 40,000 | 0.4 |

Year II

Cash inflows in year 1 are:

| <u> </u> | 32,000 | | 32,000 48,000 | | 40,000 | |
|----------|-----------------------|-------|-----------------------|-------|-----------------------|------|
| Event | Cash Inflows (Rs.) | Prob. | Cash Inflows (Rs.) | Prob. | Cash Inflows (Rs.) | Prob |
| (i) | 60,000 | 0.2 | 80,000 | 0.33 | 10,000 | 0.25 |
| (ii) | 80,000 | 0.6 | 1,20,000 | 0.34 | 16,000 | 0.5 |
| (iii) | 1,00,000 | 0.2 | 1,60,000 | 0.33 | 24,000 | 0.25 |

Using 10% as the cost of capital, advice about the acceptability of the proposal.



12. AB Limited wishes to acquire CD Ltd. on the basis of an exchange ratio of 0.8.
Other relevant financial data is as follows:

| Particulars | AB Ltd. | CD Ltd |
|----------------------------|----------|--------|
| Earnings After Tax (₹) | 1,00,000 | 20,000 |
| Equity Shares Outstanding | 50,000 | 20,000 |
| Earnings Per Share (₹) | 2 | 1 |
| Market Price Per Share (₹) | 20 | 8 |

- Determine the number of shares required to be issued by AB Ltd. for acquisition of CD Ltd.
- ii) What would be the exchange ratio if it is based on the market prices of shares of AB Ltd. and CD Ltd. ?
- iii) What are the Current Price-Earnings of the two companies?
- iv) Assuming the earnings of each firm remains the same, what is the EPS after the acquisition?
- v) What is the equivalent EPS per share of CD Ltd. ?
- vi) Ascertain the gain to shareholders of both the companies (a) at 0.8 exchange ratio and (b) an exchange ratio based on market price.



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Time: 3 Hours Max. Marks: 70

SECTION-A

Answer any seven sub questions. Each sub question carries 2 marks. (7x2=14

1. a) What do you mean by Capital Budgeting?

- b) What do you mean by Sequential Investment Decision?
- c) What is Absorption ?
- d) Define Derivatives.
- e) Give the meaning of Utility Theory.
- f) What is MIRR?
- g) What is Sensitivity Analysis?
- h) What is hedging?
- i) How are future contracts priced?
- j) What is meant by risk-return tradeoff?

SECTION-B

Mostlen, January 2016. Answer any four questions; each question carries 5 marks.

(4×5=

- 2. Is the MM thesis realistic with respect to capital structure and the value of the firm ? If not, what are its main weakness ?
- 3. Do you agree that an option is always more risky than the associated share with it? How does the risk of an option change when the share price changes?
- 4. The Balance Sheet of Alpha Numeric company is given below:

| Liabilities | Amount Assets | |
|-----------------------------|---------------------------------|----------|
| Equity conital -4 p | | Amount |
| Equity capital of Hs. 10 pe | r share 90,000 Net Fixed Assets | 2,25,000 |
| 10% Long term debt | 1,20,000 Current Assets | |
| Retained Earnings | 30,000 | 75,000 |
| Current liabilities | | |
| Total | 3,00,000 Total | 3,00,000 |

The company's total assets turnover ratio is 3, its fixed operating cost is Rs. 1,50,000 and its variable operating cost ratio is 50%. The income tax rate is 50%.

You are required to:

- i) Calculate the different types of leverages for the company
- ii) Determine the likely level of EBIT if the EPS is
 - a) Re. 1
- b) Rs. 2
- c) Rs. 0

- 5. XYZ expects a net operating income of Rs. 2,00,000. It has 8,00,000, 6% debentures. The overall capitalization rate is 10%. Calculate the value of the firm and the equity capitalization rate (Cost of Equity) according to the net operating income approach. If the debentures debt is increased to Rs. 10,00,000. What will be the effect on volume of the firm and the equity capitalization rate?
- A company has under review a project involving the outlay of Rs. 55,000 and expected to yield the following cash flows in current terms.

| Year | 1 | 2 | 3 | 4 |
|---------------------|--------|--------|--------|-------|
| Cash Flows in (Rs.) | 10,000 | 20,000 | 30,000 | 6,000 |

The company's cost of capital, incorporating a requirement for growth in dividends to keep peace with cost inflation is 20% and this is used for the purpose of investment appraisal. On the above basis, the divisional manager involved as recommended rejection of the proposal.

Having regard to your own forecast that the rate of inflation is likely to be 15% in year 1 and 10% in each of the following years, you are required to comment on his recommendation. (Discount factors @ 20% are. 0.833, 0.694, 0.579 and 0.482 respectively.)

7. Explain the difference between operating leverage and financial leverage.

SECTION-C

Answer any three questions; each question carries 12 marks.

(3×12=36

Mr. Kumar in considering an investment proposal of Rs. 40,000. The expected returns during the left of the investment are as under:

Year-1

| Event | Cash Inflow | Probability |
|-------|---------------------|-------------|
| i) | 16,000 | 0.0 |
| ii) | 24,000 | 0.5 |
| iii) | 20,000 | 0,2 |
| | THE PROPERTY OF THE | THE |

Year-II

Cash inflows in year 1 are

| Event | 16,000 | | 24,000 | Committee in | | |
|-------|--------------|---------|-----------------------|--------------|------------------------|------|
| | Cash Inflows | | | CONT | 20,000 | 1839 |
| | (Rs.) | Prob. | Cash Inflows (Rs.) | Prob. | Cash Inflows | Prob |
| (i) | 30,000 | 0.2 | 40,000 | | (Rs.) | |
| (ii) | 40.00 | a nos u | Table in Helpitol | 0.1 | 5,000 | 0.2 |
| (11) | 40,000 | 0.6 | 60,000 | 8.0 | 8,000 | 0.5 |
| (iii) | 50,000 | 0.2 | 90.000 | / | Manute SET DESCRIPTION | U.S |
| | | | 80,000 | 0.1 | 12,000 | 0.3 |

Using 10% as the cost of capital, advice about the acceptability of the proposal.

- "Changes in capitalization may be sought as a means of easing tension and giving corporation a better opportunity to pursue its purpose." In the light of this statement, discuss various reasons for changes in capitalization.
- 10. A company is considering which of two mutually exclusive projects is should undertake. The finance director thinks that the project which had higher NPV should be chosen; where as the MD thinks that the one with the higher IRR should be undertaken especially for both projects have the same initial outlay and length of life. The company anticipates a cost of capital of 10% and the net after tax cash flows of the projects are as follows:

| Year | Project X | Project Y | | |
|------|-----------|-----------|-------|--|
| 1 | 35,000 | 2,18,000 | 2 698 | |
| 0 | | 10,000 | 033 | |
| 2 | 80,000 | | | |
| 3 | 90,000 | 10,000 | | |
| 4 | 75,000 | 4,000 | | |
| 5 | 20,000 | 3,000 | | |

- a) Calculate NPV and IRR of each project.
- b) State with reasons, which project you would recommend.
- c) Explain the inconsistency in the ranking of the two projects.



- 11. Excellent Limited, acquiring company, is interested in the acquisition of Pathetic Limited, Target company. The management of Excellent Limited wants you to compute the maximum price it should be willing to pay to acquire Pathetic Limited as per adjusted present value approach. For the purpose you have been provided with the following data:
 - i) As a result of acquisition, it is expected that the FCFF of Excellent Limited are likely to increase as follows for 6 years

| Year | Amount (Rs. in lakh) | |
|------|----------------------|-------|
| 1 | 120 | D |
| 2 | 150 | Prole |
| 3 | 200 | |
| 4 | 220 | |
| 5 | 140 | |
| 6 | 100 | |
| | | |

- ii) The FCFF of Pathetic Limited is expected to be contact after 6 years.
- iii) Unlevered cost of equity is 15 percent.
- iv) 10% Debt (to the extent of Rs. 120 lakh) will finance part of acquisition cost. Debt will be reduced to Rs. 70 lakh at the end of year 6 by repaying Rs. 10 lakh at the end of each year, commencing from year 1. Debt level is expected to remain at that level thereafter.

60

- v) Corporate tax rate is 35 percent.
- vi) Advantage from debt is to be valued at cost of debt.
- viii) Bankruptcy costs are assumed to be zero.
- 12. Explain the following derivative instruments in brief:
 - i) Forward Contract
 - ii) Futures Contract
 - iii) Options
 - iv) Swaps.

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