# 2020

## BUSINESS ADMINISTRATION — HONOURS

**Seventeenth Paper**

**(Financial Management Group)**

**(Financial Management)**

**Full Marks : 100**

**(Time : 2 hrs.)**

*The figures in the margin indicate full marks.*

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

**Group - A**

**(Marks : 50)**

Answer ***any two*** questions. 25×2

**1.** (a) Discuss the different classifications of Financial Markets in India.

(b) Explain the following sources of finance to an organization (***any two***) :

(i) Leasing

(ii) Factoring

(iii) Retained Earnings.

**2.** (a) ABC Ltd. issues 1000, 8% irredeemable preference shares of the face value of ₹ 100 each. Flotation costs are estimated at 4%. Find out the cost of capital of preference share, if it is– (i) Issued at par value; (ii) Issued at 10% premium.

(b) PQR Ltd. has ₹ 100 preference share redeemable at a premium of 10% with 15 years maturity. The rate of dividend is 12%. Flotation cost is 5%. Sale price is ₹ 105.

Calculate the cost of preference shares ignoring dividend distribution tax.

**3.** ABC Ltd.is planning an expansion programme which will require ₹ 30 crore and can be funded through one of the following three options:

(i) Issue further equity share of ₹ 100 each at par.

(ii) Raise loans at 15% interest.

(iii) Issue preference shares at 12%.

Present paid-up capital is ₹ 60 crore and average annual EBIT ₹ 12 crore. Assume Income Tax at 50%. After the expansion, EBIT is expected to be ₹ 15 crore per annum.

Calculate EPS under the three financing options indicating the alternative giving the highest return to the equity shareholders.

**4.** (a) Toubro Ltd. issues 1,000, 15% debentures of face value of ₹ 100 each, redeemable at the end of 7 years. The debentures are issued at a discount of 5% and the flotation cost is estimated to be 1%.

Find out the cost of capital of debentures given that the firm has 35% tax rate (including surcharge and education cess).

(b) XYZ Ltd. issues 12% debentures of face value ₹ 100 each at a discount of 3% and the flotation cost is estimated to be 2%. The debentures are redeemable after 10 years at a premium of 10%. Corporate tax rate is 40%.

Calculate the cost of debt.

**5.** Calculate weighted average cost of capital from the following particulars of a company:

(i) ₹ 10,00,000 Equity shares of ₹ 100 each. Present dividend per share is ₹ 25 with a market price of ₹ 250 per share. Estimated growth rate in dividend : 5%.

(ii) ₹ 5,00,000, 8% preference shares of ₹100 each issued at ₹ 95.

(iii) 10% Term Loan ₹ 5,00,000. The company received the entire proceeds of the loan.

(iv) 11% 5-year Debentures of ₹ 5,00,000 (₹ 100 each). The company received ₹ 105 per debenture.

Assume that the optimum mix of capital of the company is represented in the amounts as mentioned above and the company is in a 40% tax bracket.

**6.** (a) Write down the objectives of sound capital structure.

(b) Explain briefly the classification of capital structure.

**7.** NOCIL Ltd. with EBIT of ₹ 5,00,000 is attempting to evaluate a number of possible capital structures, given below. Which of the capital structure will you recommend, and why?

| **Capital Structure** | **Debt in Capital Structure** | **Cost of Debt (%) ($K_d$)** | **Cost of Equity (%) ($K_e$)** |
|---|---|---|---|
| Plan 1 | 3,00,000 | 10 | 12 |
| Plan 2 | 4,00,000 | 10 | 12.5 |
| Plan 3 | 5,00,000 | 11 | 13.5 |
| Plan 4 | 6,00,000 | 12 | 15 |
| Plan 5 | 7,00,000 | 14 | 18 |

**8.** Critically explain :

(a) Traditional approach of Capital Structure.

(b) MM approach of Capital Structure.

**9.** Company X and Company Y are in the same risk class and identical in all respect except that Company X uses debts while Company Y does not. Levered company has ₹ 9 lakhs debentures, carrying 10% rate of interest. Both companies earn 20% before interest and taxes on their total assets of ₹ 15 lakhs.

Assume perfect capital markets, tax rate of 50% and capitalization rate of 15% for an all equity company.

(i) Compute the value of both the companies using Net Income (NI) Approach;

(ii) Compute the value of both the companies using Net Operating Income (NOI) Approach; and

(iii) Using Net Operating Income (NOI) Approach, calculate the overall cost of capital for both the companies.

**10.** Write short notes on :

(a) Profit Maximisation vs. Wealth Maximisation

(b) Explicit and Implicit costs of capital.

## Group - B

**(Marks : 50)**

Answer ***any two*** questions. 25×2

**11.** Firms A, B and C are engaged in diverse operations. Some of their particulars for the next accounting year are given below :

| FIRM | A | B | C |
|---|---|---|---|
| Output (units) | 8,000 | 20,000 | 12,000 |
| Selling Price per unit ₹ | 10 | 20 | 2 |
| Variable cost per unit ₹ | 4 | 10 | 1 |
| Operating Fixed Cost p.a. ₹ | 36,000 | 1,60,000 | 8,000 |
| Fixed Financial Charges p.a. ₹ | 10,000 | 20,000 | NIL |

You are required to make a comparative analysis of operating, financial and total risks of the firms on the basis of leverages and comment on the result.

**12.** Following information are available for three companies X, Y and Z. Calculate Operating Leverage, Financial Leverage, Combined Leverage and EPS of these three companies and comment on the result.

| | X | Y | Z |
|---|---|---|---|
| Annual installed capacity (units) | 50,000 | 75,000 | 1,25,000 |
| Capacity utilization and sales | 80% | 80% | 80% |
| Selling price/unit (₹) | 50 | 60 | 60 |
| Variable cost/unit (₹) | 15 | 20 | 30 |
| Annual Operating Fixed Cost (₹) | 2,00,000 | 3,00,000 | 5,00,000 |
| Equity share capital (₹) (10,000 shares for each company) | 10,00,000 | 15,00,000 | 20,00,000 |
| 12% Preference share capital (₹) | – | 2,50,000 | 5,00,000 |
| 15% Debentures (₹)<br>Corporate Tax Rate: 30% | 1,00,000 | 2,00,000 | 3,00,000 |

**13.** The operating profit (EBIT) of ABC Ltd. is ₹ 2,00,000. Its capital structure consists of the following :

| | |
|---|---|
| 8% Debentures | ₹ 5,00,000 |
| 10% Preference Share Capital | ₹ 1,00,000 |
| Equity Share Capital of ₹ 100 each | ₹ 4,00,000 |

The Company is in the 35% tax bracket.

(i) Determine the firm's EPS.

(ii) Determine the % change in EPS corresponding with 30% increase in EBIT.

(iii) Determine the degree of financial leverage at the current level of EBIT.

(iv) Assuming DOL=2, determine the DCL.

**14.** Bhaskar manufacture Ltd. has equity share capital of ₹ 5,00,000 (face value ₹ 100). To meet the expenditure of an expansion program, the company wishes to raise ₹ 3,00,000 and is having following four alternative sources to raise the funds :

Plan A : To have full money from the issue of equity shares.

Plan B : To have ₹ 1,00,000 from equity and ₹ 2,00,000 from borrowings from the financial institutions @ 10% p.a.

Plan C : Full money from borrowings @ 10% p.a.

Plan D : ₹ 1,00,000 in equity and ₹ 2,00,000 from 8% preference shares.

The company is having present earnings of ₹ 1,50,000. The Corporate tax is 50%.

Select a suitable plan out of the above four plans to raise the required funds.

**15.** (a) Following information relating to Jee Ltd. are given :

| | |
|---|---|
| Profit after tax | ₹ 10,00,000 |
| Dividend pay-out ratio | 50% |
| Number of Equity Shares | 50,000 |
| Cost of Equity | 10% |
| Rate of Return on Investment | 12% |

(i) What would be the market value per share as per Walter's model?

(ii) What is the optimum dividend pay-out ratio according to Walter's Model and Market value of equity share at that pay-out ratio?

(b) You are requested to find out the appropriate dividend payment ratio as to have the share price at ₹ 56 by using Walter's Model, based on following information available for a company.

| | |
|---|---|
| Net Profit | ₹ 50 lakhs |
| Outstanding 10% Preference shares | 80 lakhs |
| Number of Equity Shares | 5 lakhs |
| Return on Investment | 15% |
| Cost of Capital (after tax) ($K_e$) | 12%. |

**16.** The following information are given for PQ Ltd.

Cost of capital ($K_e$) = 10%

Earnings per share (E) = ₹ 10

Assumed rate of return on investment (r) : (i) 15%, (ii) 10% and (iii) 8% respectively.

Determine the value per share assuming the following retention ratios (R/E) :

| SERIAL NO. | RETENTION RATIO b= R/E (%) | Pay-out ratio (D/E) i.e., (1-b) (%) |
|---|---|---|
| A | 0 | 100 |
| B | 10 | 90 |
| C | 30 | 70 |
| D | 50 | 50 |
| E | 60 | 40 |

**17.** (a) A company has a book value per share of ₹ 137.80. Its return on equity is 15% and it follows a policy of retaining 60% of its earnings. If the opportunity cost of capital is 18%, what is the price of the share today using (i) Walter's Model and (ii) Gordon's Model?

(b) A company's total investment in asset is ₹ 1,00,00,000. It has 1,00,000 shares of ₹ 100 each. Its expected rate of return on investment is 30% and the cost of capital is 18%. The company has a policy of retaining 25% of its profits. Determine the value of the firm using Gordon's Model.

**18.** From the following data, calculate the value of an Equity Share of each of the following three companies according to Walter's Model when dividend pay-out ratio is (a) Nil (b) 25% and (c) 75%

| Companies | M. Ltd. | L. Ltd. | N. Ltd. |
|---|---|---|---|
| Internal rate of return (r) | 15% | 12% | 10% |
| Cost of capital (K) | 12% | 12% | 12% |
| Earnings per share (E) | ₹ 10 | ₹ 10 | ₹ 10 |

What conclusion would you draw from your observation?

**19.** (a) What is future contract? How is it different from a forward contract?

(b) What is an option? Explain in brief, the different types of options.

**20.** Answer the following :

(a) "Derivatives are risk-shifting devices." — Do you agree? Reason out your answer.

(b) What do you understand by a portfolio?

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