# 2021

## BUSINESS ADMINISTRATION — HONOURS

**Paper : A403-C-10**

**(Financial Management)**

**Full Marks : 80**

*The figures in the margin indicate full marks.*

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

*Answer **any five** questions.*

**1.** (a) Z Ltd. takes a loan of Rs. 3,00,000 from a financial institution at 8% p.a. The loan is to be repaid in five equal annual instalments. Calculate the amount of each instalment. 8

(b) Shyam Co. Ltd. has 10% Debentures of Rs. 6,00,000 which are to be redeemed after 6 years. Shyam Co. Ltd. is contemplating on creating a sinking fund for the purpose of redemption of the debentures after 6 years. The sinking fund investments earn interest at the rate of 12% p.a. You are required to calculate the amount of annual contribution to the sinking fund. 8

**2.** What is the Scope of Financial Management? What is the difference between Profit Maximization and Wealth Maximization in the context of Financial Management? 8+8

**3.** From the information given below, prepare a Cash budget of Chatterjee Ltd. for the first quarter ending on 30th June 2021: 16

(a) Sales are both on Credit and Cash. Credit Sales being 3/4th of the Sales.

(b) Realisation from Debtors are 25% in the month of sale, 60% in the month following that and the balance in the month after that.

(c) Purchases are paid for in the same month.

(d) The company has outstanding debentures of Rs. 3 lakh on 1st April 2021, which carry interest @ 15% p.a. payable on a quarterly basis on the last date of each quarter. 20% of the debentures are due for redemption on 30th June 2021.

(e) Anticipated office cost for three-month period are April—Rs. 20,000; May—Rs. 15,000 and June—Rs. 25,000.

(f) The opening cash balance of Rs. 20,000 is the minimum cash balance to be maintained. Deficits have to be met by borrowals in multiples of Rs. 20,000 on which interest on monthly basis has to be paid on the first date of the subsequent month, at 12% p.a. Interest is paid for a minimum period of a month.

(g) Sales forecast for the different months for the year 2021 are:
February—Rs. 1,60,000, March—Rs. 1,50,000, April—Rs. 1,40,000, May—Rs. 1,80,000, June—Rs. 2,00,000.

(h) Purchases for the different month for the year 2021 are:
February—Rs. 1,20,000, March—Rs. 1,12,000, April—Rs. 1,44,000, May—Rs. 1,60,000, June—Rs. 80,000.

**4.** (a) Discuss Systematic Risk and Unsystematic Risk. 6

(b) Puja Ltd. furnishes the following information in respect of a material used in its production process:

| | | |
|---|---|---|
| (i) | Annual requirement : | 16,000 units |
| (ii) | Cost of placing an order : | Rs. 2,300 |
| (iii) | Cost per unit : | Rs. 60 |
| (iv) | Cost of capital : | 10% p.a |
| (v) | Insurance on inventory : | 12.5% p.a |
| (vi) | Obsolescence : | 7.5% p.a |
| (vii) | Storage cost : | Rs. 6,400 |

You are required to determine:

(A) Economic Ordering Quantity

(B) No. of order to be placed per year

(C) Time gap between two consecutive orders; and

(D) Optimum inventory cost (excluding cost of raw materials).

(E) If the minimum lot size to be supplied is 4,000 units, what is the extra cost the company has to incur? 10

**5.** Relevant information about three companies are given below:

| | BIL | PIL | MIL |
|---|---|---|---|
| Annual production capacity | 1,00,000 | 1,50,000 | 2,50,000 |
| Capacity Utilization and sales | 75% | 75% | 75% |
| Unit Selling Price (Rs.) | 40 | 50 | 50 |
| Unit Variable Cost (Rs.) | 15 | 15 | 20 |
| Fixed Cost p.a. (Rs.) | 2,00,000 | 3,00,000 | 5,00,000 |
| Equity Capital (Rs.) | 5,00,000 | 7,00,000 | 10,00,000 |
| [*1000 shares for each company*] | | | |
| 10% Preference Share Capital (Rs.) | – | 50,000 | 1,00,000 |
| 15% Debentures | 1,00,000 | 2,00,000 | 3,00,000 |

Calculate Operating Leverage, Financial Leverage, Combined Leverage and EPS of these three companies and comment. 12+4

**6.** The capital structure of Triumph Ltd. for the year ended 31st December 2020 is given below:

| | Rs. |
|---|---|
| Equity share capital (Rs. 10 each) | 3,00,000 |
| Reserve & Surplus | 1,50,000 |
| Preference share capital (Rs. 100 each) | 2,40,000 |
| Debentures (Rs. 100 each) | 1,00,000 |

All these securities are traded in the capital markets. Recent prices are: debentures @ Rs. 100, Preference shares @ 125 and Equity shares @ Rs. 20 each.

You are required to calculate the overall cost of capital using market value as weight after taking into consideration the following further information:

(a) Rs. 100 per debenture redeemable at par : 10 year maturity, 12% coupon rate, 5% floatation costs, sale price Rs. 100.

(b) Rs. 100 Preference share redeemable at par : 8 years maturity, 10% Dividend rate , 4% floatation costs, sale price Rs. 100.

(c) Applicable tax rate : 50%

(d) The company's EBIT for the year ended 31st December, 2020 are Rs. 2,40,000.

(e) Growth rate in earnings : 5% p.a. 16

**7.** Two machines are not identical in many respects. Following are the information regarding the two. The estimated life of both machines is five years, leaving no salvage value at the end.

| | **Cost (Rs.)** | **Anticipated Cash flow after tax per year (Rs.)** | | | | |
|---|---|---|---|---|---|---|
| | | Yr. 1 | Yr. 2 | Yr. 3 | Yr. 4 | Yr. 5 |
| Machine M | 6,25,000 | – | 1,25,000 | 5,00,000 | 3,50,000 | 1,50,000 |
| Machine N | 10,00,000 | 2,50,000 | 3,50,000 | 4,00,000 | 4,25,000 | 2,00,000 |

The company's cost of capital is 16%. You are required to make an appraisal of the two machines and advise the company using (i) NPV (ii) Internal rate of return (IRR).

**(Given : present value of Re. 1)**

| **End of Year** | **16%** | **18%** | **20%** |
|---|---|---|---|
| 1 | 0.862 | 0.847 | 0.833 |
| 2 | 0.743 | 0.718 | 0.694 |
| 3 | 0.641 | 0.609 | 0.579 |
| 4 | 0.552 | 0.516 | 0.482 |
| 5 | 0.476 | 0.437 | 0.402 |

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**8.** (a) What is operating cycle?

(b) Based on the information given below, you are required to compute the Working Capital requirement of AXIL INDIA CO. Ltd. 4+12

| | Rs./unit |
|---|---|
| Raw materials | 5 |
| Other Variable Costs | 4 |
| Overheads | 2 |
| Profit | 1 |
| Selling Price | 12 |

Additional information:

- Level of activity 20,800 units per annum.
- Raw Materials are in stock for an average of 6 weeks.
- Finished Goods are in stock for an average of 6 weeks.
- W. I. P. is for 4 weeks.
- Credit allowed by suppliers of raw materials is for 4 weeks.
- Credit allowed to Debtors is for 8 weeks.
- Lag in payment of Overheads is 2 weeks.
- Cash in hand and at Bank Rs. 15,000.

**9.** (a) Show under MM Hypothesis that the payment of dividend has no impact on the value of the firm.

(b) Following are the detail regarding three Companies A Ltd., B Ltd., C Ltd.:

| A Ltd. | B Ltd. | C Ltd. |
|---|---|---|
| r = 15% | r = 5% | r = 10% |
| k = 10% | k = 10% | k = 10% |
| E = Rs. 8 | E = Rs. 8 | E = Rs. 8 |

r = internal rate of return, k = cost of capital, E = earning per share

Calculate the value of an equity share of each of these companies applying Walter's formula when divided payment ratio (D\P ratio) is

(A) 25%

(B) 75% 8+8

**10.** (a) What will be the impact of taxation on MM Theory on capital structure?

(b) X Ltd. has Rs. 10,00,000 in 10% Debentures. The equity capitalization rate is 12%. The company is expecting an annual earnings before interest and taxes of Rs. 25,00,000.

You are required to:

(i) Calculate the value of the firm and overall cost of capital using NI Approach (Ignore Tax).

(ii) Re-calculate the value of the firm and overall cost of capital if the company decides to:

(A) Raise Rs. 25,00,000 by issue of 10% Debentures and use the proceeds to redeem some of the equity shares.

(B) Raise Rs. 25,00,000 by issue of equity shares and use the proceeds to redeem some of the debentures. 4+12