INTERMEDIATE EXAMINATION

December 2024

P–11(FMDA)
Syllabus 2022

FINANCIAL MANAGEMENT AND BUSINESS DATA ANALYTICS

Time Allowed: 3 Hours | *Full Marks: 100*

The figures in the margin on the right side indicate full marks.

Where considered necessary, suitable assumptions may be made and clearly indicated in the answer.

All working notes should form part of your answer.

Section-A (Compulsory)

1. Choose the correct option from the four alternatives given: 2×15=30

(i) Which of the following is a widely used graph for Data Visualisation?

(A) Bar chart

(B) Pie chart

(C) Histogram

(D) All of the above

(ii) If the operating leverage is 1.22, the sales for the year is ₹ 75 lakhs, the variable cost is ₹ 42 lakhs, then the EBIT is equal to __________.

(A) ₹ 32 lakhs

(B) ₹ 27 lakhs

(C) ₹ 31 lakhs

(D) ₹ 31.5 lakhs

(iii) Operating leverage arises because of __________.

(A) Fixed Cost of Production

(B) Fixed Interest Cost

(C) Variable Cost

(D) Step Cost

(iv) Suppliers and Creditors of a firm are primarily interested in __________.

(A) Profitability Position

(B) Liquidity Position

(C) Market Share Position

(D) Debt Position

(v) Which of the following does not help to increase Current Ratio?

(A) Issue of Debentures to buy Stock
(B) Issue of Debentures to pay Creditors
(C) Sale of Investment to pay Creditors
(D) Avail Bank Overdraft to buy Machine

(vi) Which of the following statements is correct?

(A) A higher Receivable Turnover is not desirable.
(B) Interest Coverage Ratio depends upon Tax Rate.
(C) Increase in Net Profit Ratio means increase in Sales.
(D) Lower Debt-Equity Ratio means lower Financial Risk.

(vii) A firm has EBIT of ₹ 50,000. Market value of debt is ₹ 80,000 and overall capitalization rate is 20%. Market value of firm under NOI Approach is ___________.

(A) ₹ 2,50,000
(B) ₹ 1,70,000
(C) ₹ 30,000
(D) ₹ 1,30,000

(viii) Which one of the following is not a feature of Certificate of Deposits?

(A) The minimum lock-in period for CDs is 30 days.
(B) The minimum issue size of CDs are ₹ 1,00,000.
(C) CDs are transferable by endorsement and delivery.
(D) CDs attract stamp duty as applicable to negotiable instruments.

(ix) Which one of the following is not applied in determining the credit policy of a firm?

(A) Credit period or duration of credit
(B) Level of credit sales to optimize profits
(C) Collection policy
(D) Cost of goods sold

(x) A company is considering two capital structures. Plan A consists of 100% equity with 10,000 shares outstanding at ₹ 100 each. Plan B consists of 50% debt and 50% equity, where the debt is ₹ 5,00,000 at 10% interest, and there are 5,000 shares outstanding at ₹ 100 each. If the EBIT is ₹ 1,50,000 and tax rate is 30%, what is the EPS under Plan B?

(A) ₹ 14
(B) ₹ 17
(C) ₹ 20
(D) ₹ 18

(xi) Given, risk-free rate of return = 6 %; market return = 11%; cost of equity = 15%; value of beta (β) is __________.

(A) 1.9

(B) 1.8

(C) 2.0

(D) 2.2

(xii) The procedure that organises data into a meaningful order to make it simpler to comprehend, analyse and visualise, is called __________.

(A) Data validation

(B) Data sorting

(C) Data aggregation

(D) Data analysis

(xiii) Which of the following is/are the type(s) of cloud computing?

(A) Private cloud

(B) Public cloud

(C) Hybrid cloud

(D) All of the above

(xiv) If the company's D/P ratio is 60% and ROI is 15%, what should be the growth rate under Gordon model?

(A) 5.5%

(B) 7.2%

(C) 6.0%

(D) 9.6%

(xv) Which financial metric is crucial for understanding a firm's Cash Management efficiency?

(A) Gross Profit Margin

(B) Cash Conversion Cycle

(C) Operating Profit

(D) Return on Capital Employed

SECTION – B

Answer *any five* questions from the following. Each question carries 14 marks. 14×5=70

2. (a) What are the principal features of a commercial paper? Discuss the advantages offered by commercial paper to its issuers. 7

(b) What do you mean by Descriptive Analytics? Explain the information revealed by Descriptive Analytics. 7

3. (a) The following information is available about Boxa Company:

Accounts payable	₹ 100 lakhs
Accounts receivable	₹ 50.48 lakhs
Average inventory	₹ 300 lakhs
Buildings and land	?
Cash	₹ 50 lakhs
Cost of goods sold	₹ 800 lakhs
EBIT	₹ 180 lakhs
Long-term bonds	₹ 250 lakhs with 10% interest rate
Price per share	₹ 72
Price/Earnings ratio	18
Shareholders' equity	?
Total assets	₹ 1,000 lakhs
Total sales	₹ 1,250 lakhs
Cash sales	₹ 100 lakhs

You are required to calculate the following:

(i) Days sales outstanding

(ii) Interest coverage ratio

(iii) Debt ratio

(iv) Inventory turnover ratio

(v) Earnings per share 7

(b) A firm wants to know whether it belongs to the non-bankrupt class of firms. Certain figures are extracted from the financial statements of the firm. You are required to use Altman's Z score model and place the firm in the appropriate class.

- Sales: ₹ 20,00,000
- EBIT: ₹ 10,00,000
- Total Assets: ₹ 40,00,000
- Book Value of Total Liabilities: ₹ 16,00,000
- Retained Earnings: ₹ 24,00,000
- Market Value of Equity: ₹ 80,00,000
- Working Capital: ₹ 8,00,000 7

4. (a) Prepare a Common-size Income Statement from the following income statements and interpret the same. 7

INCOME STATEMENT

Particulars	31st March 2023 ₹	31st March 2024 ₹
Gross Sales	10,30,000	12,42,000
Less: Sales Returns	30,000	42,000
Net Sales	10,00,000	12,00,000
Less: Cost of Goods Sold	6,00,000	6,60,000
Gross Profit	4,00,000	5,40,000
Less: Operating Expenses:		
Administrative Expenses	85,000	1,14,000
Selling Expenses	2,00,000	1,93,200
Total Operating Expenses	2,85,000	3,07,200
Income from Operations	1,15,000	2,32,800
Add: Non-operating Income	24,000	34,200
Total Income	1,39,000	2,67,000
Less: Non-operating Expenses	36,000	53,280
Net Profit	1,03,000	2,13,720

(b) Prakash Packers Ltd. has the following capital structure:

Particulars	**₹ (in lakhs)**
Equity Share Capital (Rs.10 each)	200
14% Preference Share Capital (Rs.100 each)	100
Retained Earnings	100
12% Debentures (Rs.100 each)	300
11% Term Loan from Bank	50
Total	750

Additional Information:

(i) The market price per equity share is ₹ 32. The company is expected to declare a dividend per share of ₹ 2 per share and there will be a growth of 10% in dividends for the next 5 years.

(ii) The preference shares are redeemable at a premium of ₹ 5 per share after 8 years and are currently traded at ₹ 84 in the market.

(iii) Debenture redemption will take place after 7 years at a premium of ₹ 5 per debenture and the current market price is ₹ 90 per debenture.

(iv) The corporate tax rate is 40%.

You are required to calculate the weighted average cost of capital using book value weights. 7

5. (a) From the following information, calculate Net Present Value of the following business proposal and suggest whether the proposal should be accepted or rejected: 7

Initial Investment in Fixed Assets	₹ 5,00,000
Initial Investment in Working Capital	₹ 1,00,000
Salvage Value of Fixed Assets after 3 years	₹ 2,00,000
Annual Cash inflows before tax	₹ 3,00,000
Income tax rate (on profit as well as capital gain)	30%
Cost of capital	18%

Depreciation is to be charged under WDV method @40%.

Present Values of Re. 1.00 at 18% are as follows:

Year	1	2	3
PVIF	0.8475	0.7182	0.6086

(b) A project, requiring initial investment of ₹ 5,00,000 in creating a fixed facility, ensures net incremental inflow of ₹ 1,50,000 per annum before deduction of depreciation and tax. The fixed facility is likely to have an economic life of five years with scrap value of ₹ 1,00,000 at the end. Depreciation is allowed on straight-line basis and marginal tax rate is 40%. The cost of capital is 10% p.a.

You are required to estimate the IRR of the project and advise the management on its acceptability. 7

Consider the following Present Value table:

Year	1	2	3	4	5
PVIF @ 10%	0.909	0.826	0.751	0.683	0.621
PVIF @ 11%	0.901	0.812	0.731	0.659	0.593
PVIF @ 12%	0.893	0.797	0.712	0.636	0.567

6. (a) JBC Ltd. sells goods at a gross profit of 25%. Depreciation is considered as a part of cost of production. The following are the annual figures given to you:

Sales (2 months' credit)	₹ 18,00,000
Materials consumed (1 month credit)	₹ 4,50,000
Wages paid (1 month lag in payment)	₹ 3,60,000
Cash manufacturing expenses (1 month lag in payment)	₹ 4,80,000
Administrative expenses (1 month lag in payment)	₹ 1,20,000
Sales promotion expenses (paid quarterly in advance)	₹ 60,000

The company keeps one month's stock each of raw materials and finished goods. It also keeps ₹ 1,00,000 in cash.

You are required to estimate the working capital requirements of the company on cash cost basis, assuming 15% safety margin. 7

(b) Himalaya Refrigeration Company purchases 1,600 units of a component annually, from Bolts & Pins Associates. The annual cost of holding each unit of component is ₹ 8 and the cost of placing order each time is ₹ 100.

You are required to calculate:

(i) Economic Order Quantity;

(ii) Reorder Level; and

(iii) Maximum and Minimum Inventory Level, if the company operates 320 days in a year, material procurement time is 10 days, and safety stock is 20 units. Assume minimum consumption rate per day = average consumption rate per day. 7

7. (a) Jai & Karti Ltd. has a capital of ₹10 lakhs in equity shares of ₹100 each. The shares are currently quoted at par. The company proposes declaration of a dividend of ₹ 10 per share at the end of the current financial year. The capitalization rate for the risk class to which the company belongs is 12%. What will be the market price of the share at the end of the year, if

(i) a dividend is not declared?

(ii) a dividend is declared?

Assuming that the company pays the dividend and has net profits of ₹ 5,00,000 and makes new investments of ₹ 10 lakhs during the period, how many new shares must be issued? 7

(b) Alpha Pharma Ltd., which has been engaged in business for the last five years, furnishes the following information for its only product Metmorphin Hydrochloride which is being sold at ₹ 23 per unit:

Total Sales:	1,45,000 units
Fixed Cost:	₹ 2,80,000
Variable Cost:	₹ 17 per unit
Debt Capital:	₹ 10,00,000 @ 11% interest rate
Equity Capital:	₹ 20,00,000

Face Value of each share of the company is ₹ 10.

Tax rate applicable is 30%.

(i) What is the number of units that should be sold so that the Earnings before Taxes (EBT) is equal to zero?

(ii) If Earnings before Interest & Taxes (EBIT) increase to three times the current EBIT, then what is the Earnings after Taxes (EAT)?

(iii) What will be the degree of operating, financial and combined leverage? 7

8. (a) What do you mean by Data Ethics? Discuss the five basic principles of Data Ethics that a business organisation should follow. 7

(b) What is Business Intelligence (BI)? List the procedures to which the use of BI has expanded. 7