INTERMEDIATE EXAMINATION SET 1

MODEL QUESTION PAPER TERM – JUNE 2025

PAPER – 11 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.

SECTION – A (Compulsory)

1. Choose the correct option: **[15×2 = 30]**

i. What will be the future value and compound interest of an amount of ₹75,000 at 8% compounded semi-annually?

a. ₹48,841
b. ₹36,018
c. ₹35,194
d. ₹42,219

ii. Commercial papers are generally issued at a price:

a. Equal to face value
b. More than face value
c. Less than face value
d. Equal to redemption value

iii. The following information is given about a company: (a) current assets ₹900 lakh and current liabilities ₹450 lakh in current year and (b) current assets ₹1,100 lakh and current liabilities ₹530 in previous years. The approximate percentage decrease in current ratio is _________.

a. 5%
b. 4.85%
c. 4%
d. 3.75%

iv. Which of the following statements is correct?

a. Lower Debt-Equity Ratio means lower Financial Risk.
b. Increase in Net Profit Ratio means increase in Sales
c. Interest Coverage Ratio depends upon Tax Rate
d. A Higher Receivable Turnover is not desirable

v. PQR Ltd. issued 5,000, 12% debentures of ₹100 each on 1.4.2019 to be matured on 1.4.2024. The market price of the debenture is ₹80. Compute the cost of existing debentures assuming 35% tax rate.

a. 13.11%
b. 12.71%
c. 13.59%
d. 13.01%

vi. An implicit cost of increasing proportion of debt is:
- a. Tax should would not be available on new debt
- b. P/E Ratio would increase
- c. Rate of Return of the company would decrease.
- d. Equity shareholders would demand higher return

vii. Average collection period is 2 months, cash sales and average receivables are ₹5,00,000 and ₹6,50,000 respectively. The sales amount would be-
- a. ₹40,00,000
- b. ₹42,00,000
- c. ₹44,00,000
- d. ₹48,50,000

viii. XYZ Ltd. issued commercial paper as per the following details:
Date of issue 17th December, 2024
Date of Maturity 17th March, 2024
Size of issue ₹10 crore, No. of Days 90 Days, Interest rate 11.25%, Face value ₹100
What was the net amount received by the company on issue of commercial paper?
- a. ₹9.53 crore
- b. ₹9.80crore
- c. ₹9.69crore
- d. ₹9.73 crore

ix. If a firm has a DOL of 2.8, it means:
- a. If sales increase by 2.8%, the EBIT will increase by 1%
- b. If sales rise by 1%, EBIT will rise by 2.8%
- c. If EBIT increase by 2.896, the EPS will increase by 1 %
- d. None of the above

x. To create a minimum variance portfolio, in what proportion should the two securities be mixed if the following information is given S1 = 10%, S2 = 12%, P12 = 0.6?
- a. 0.72 and 0.28
- b. 0.70 and 0.30
- c. 0.60 and 0.40
- d. 0.50 and 0.40

xi. Four-times stock turnover ratio implies __________ months inventory holding period.
- a. 12 months
- b. 9 months
- c. 6 months
- d. 3 months

xii. Annual Cost Saving ₹4,00,000; Useful life 4 years; Cost of the Project ₹11,42,000. The Payback period would be –
a. 2 years 8 months
b. 3 years 2 months
c. 2 years 11 months
d. 2 year 10 months

xiii. Which of the following distributions is used for modeling events that happen at a constant rate over time, such as the number of accidents occurring in an hour?
a. Binomial distribution
b. Hypergeometric distribution
c. Poisson distribution
d. Geometric distribution

xiv. In which type of analytics would you analyze customer feedback to identify the main reasons for customer churn?
a. Diagnostic Analytics
b. Prescriptive Analytics
c. Descriptive Analytics
d. Predictive Analytics

xv. Following is a widely used graph for data Visualisation:
a. Bar chart
b. Pie chart
c. Histogram
d. All of the above

Section – B

(Answer any five questions out of seven questions given. Each question carries 14 Marks)

[5 x 14 = 70]

2. (a) Identify the process of Credit Rating. [7]

(b) Describe prescriptive analytics with examples. Explain how does prescriptive analytics work. [7]

3. (a) Following are the ratios to the trading activities of National Traders Ltd:

Debtors velocity	3 months
Stock velocity	8 months
Creditors velocity	2 months
Gross profit ratio	25%

Gross profit for a year ended 31st December, 2024 amounts to ₹4,00,000
Closing stock of the year is ₹10,000 above the opening stock.
Bills receivable amount to ₹25,000 and Bills payable to ₹10,000.

Compute:

(A) Sales

(B) Sundry Debtors

(C) Closing stock &

(D) Sundry creditors. [7]

(b) The Balance Sheets of a company as on 31st March,2023 and 2024 are given below:

(₹)

Liabilities	31.03.23	31.03.24	Assets	31.03.23	31.03.24
Equity Share Capital	14,40,000	19,20,000	Fixed Assets	38,40,000	45,60,000
Capital Reserve	--	48,000	Less: Dep.	(11,04,000)	(13,92,000)
General Reserve	8,16,000	9,60,000		27,36,000	31,68,000
Profit & Loss A/c	2,88,000	3,60,000	Investment	4,80,000	3,84,000
9% Debentures	9,60,000	6,72,000	Sundry Debtors	12,00,000	14,00,000
Sundry Creditors	5,50,000	5,90,000	Stock	1,40,000	1,84,000
Bills Payable	26,000	34,000	Cash in hand	4,000	--
Proposed Dividend	1,44,000	1,72,800	Preliminary Expenses	96,000	48,000
Provision for tax	4,32,000	4,08,000			
Unpaid dividend	--	19,200			
	46,56,000	51,84,000		46,56,000	51,84,000

Additional Information:

During the year ended 31st March, 2024 the company:

1. Sold a machine for ₹1,20,000; the cost of machine was ₹2,40,000 and depreciation provided on it was ₹84,000.
2. Provided ₹4,20,000 as depreciation on fixed assets.
3. Sold some investment and profit credited to capital reserve.
4. Redeemed 30% of the debenture @ 105.
5. Decided to write off fixed assets costing ₹60,000 on which depreciation amounting to ₹48,000 has been provided.

You are required to prepare Cash Flow Statement as per Ind AS-7. [7]

4. (a) The following are the Balance Sheets of Maharaj Ltd. as on 31.03.23 and 31.03.24:

Particulars	31.03.23 (₹)	31.03.24 (₹)
Current Assets:		
Cash and Bank Balance	23,600	2,000
Debtors	41,800	38,000
Inventory	32,000	26,000
Other Current Assets	6,400	2,600
Total Current Assets (A)	1,03,800	68,600
Fixed Assets :		

Land and Building	54,000	34000
Plant and Machinery	62,000	1,57,200
Furniture	5,800	9,600
Total Fixed Assets (B)	1,21,800	2,00,800
Long-term Investment (C)	9,200	11,800
Total Assets (A + B + C)	2,34,800	2,81,200
Current Liabilities (D)	52,400	25,400
Long-term Debt (E)	40,000	65,000
Owners' Equity:		
Equity Share Capital	80,000	1,20,000
Reserve and Surplus	62,400	70,800
Total Owners' Equity (F)	1,42,400	1,90,800
Total Liabilities and Capital (D + E+F)	2,34,800	2,81,200

Prepare Comparative Balance Sheets and study its financial position. [7]

(b) Asianol Ltd. has the following Capital Structure:

	₹ (in Lakhs)
Equity Share Capital (10 lakhs shares)	100
12% Preference Share Capital (10,000 shares)	10
Retained Earnings	120
14% Debentures (70,000 Debentures)	70
14 % Term Loan	100
	400

The market price per equity share is ₹25. The next expected dividend per share is ₹2 and is expected to grow at 8%. The preference shares are redeemable after 7 years at per and are currently quoted at ₹75 per share. Debentures are redeemable after 6 years at per and their current market quotation is ₹90 per debenture. The tax rate applicable to the firm is 50%.

Calculate WACC under Book value method and Market value method. [7]

5. (a) A firm proposes to market a cheaper variety of its existing brand to be sold for ₹20 per unit, estimated product-life being five years. The sales volume for the five years has been estimated to be 30,000 units for the first year, 40,000 units for each of the next two years and 20,000 units for each of the last two years. The variable cost p.u. is ₹10. Production of the cheapest brand will entail an initial expenditure of ₹4,50,000 in purchasing and installing a new plant with estimated economic life of five years and scrap value of ₹50,000. The fixed cost of ₹2,00,000 per annum including depreciation on the plant on straight line basis will be needed for producing and marketing the cheaper brand. Introduction of this cheaper variety is also likely to have an adverse impact on the demand of the existing dearer brand resulting in loss of contribution estimated at ₹20,000 per annum.

Assuming cost of Capital to be 10% and marginal tax rate to be 40%, you are required to evaluate proposal and give your reasoned recommendation as to its acceptance or rejection. The PV factors at 10% for five years are 0.909, 0.826, 0.751, 0.683 and 0.62. [7]

(b) Modern Enterprises Ltd. is considering the purchase of a new computer system for its research and development division, which would cost ₹35 lakh. The operation and maintenance costs (excluding depreciation) are expected to be ₹7 lakh per annum. It is estimated that the useful life of the system would be 6 years, at the end of which the disposal value is expected to be ₹1 lakh.

The tangible benefits expected from the system in the form of reduction in design and draftsmanship costs would be ₹12 lakh per annum. The disposal of used drawing office equipment and furniture initially is anticipated to net ₹9 lakh.

As capital expenditure in research and development, the proposal would attract a 100% write-off for tax purposes. The gains arising from disposal of used assets may be considered tax free. The effective tax rate is 35%. The average cost of capital of the company is 12%. After appropriate analysis of cash flows, advise the company of the financial viability of the proposal. Ignore tax on salvage value. [7]

6. (a) Solaris Ltd. sells goods in domestic market at a gross profit of 25%, not counting on depreciation as a part of the ‘cost of goods sold’. Its estimates for next year are as follows:

Amount (₹ in lakh)

Sales - Home at 1 month’s credit	1,200
Exports at 3 months’ credit, selling price 10% below home price	540
Materials used (suppliers extend 2 months’ credit)	450
Wages paid, 1⁄2 month in arrears	360
Manufacturing expenses, paid 1 month in arrears	540
Administrative expenses, paid 1 month in arrears	120
Sales promotion expenses (payable quarterly - in advance)	60
Income - tax payable in 4 instalments of which one falls in the next financial year	150

The company keeps 1 month’s stock of each of raw materials and finished goods and believes in keeping ₹20 lakh as cash. Assuming a 15% safety margin, ascertain the estimated working capital requirement of the company (ignore work-in-process). [7]

(b) Surya Industries Ltd. is marketing all its products through a network of dealers. All sales are on credit and the dealers are given one-month time to settle bills. The company is thinking of changing the credit period with a view to increase its overall profits. The marketing department has prepared the following estimates for different periods of credit:

Particulars	Present Policy	Plan I	Plan II	Plan III
Credit period (in months)	1	1.5	2	3
Sales (₹ Lakhs)	120	130	150	180
Fixed costs (₹ Lakhs)	30	30	35	40
Bad debts (% of sales)	0.5	0.8	1	2

The company has a contribution/sales ratio of 40% further it requires a pre-tax return on investment at 20%. Examine each of the above proposals and recommend the best credit period for the company. [7]

7. (a) The operating income of Hypothetical Ltd. amounts to ₹1,86,000. It pays 35% tax on its income. Its capital structure consists of the following:

Particulars	₹
14% Debentures	5,00,000
15% Preference shares	1,00,000
Equity shares (₹100 each)	4,00,000

(i) Determine the firm's EPS.

(ii) Determine the percentage change in EPS associated with 30% change (both increase and decrease) in EBIT.

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

(iv) What additional data do you need to compute operating as well as combined leverage? [7]

(b) A firm's sales, variable costs and fixed cost amount to ₹75 lakh, ₹42 lakh and ₹6 lakh respectively. It has borrowed ₹45 lakh at 9% and its equity capital totals ₹55 lakhs.

(i) Calculate the firm's ROI.

(ii) Does it have favorable financial leverage?

(iii) If the firm belongs to an industry whose asset turnover is 3, does it have high or low asset leverage?

(iv) Compute the operating, financial and combined leverages of the firm.

(v) If the sales drop to ₹50 lakh what will the new EBIT be?

(vi) At what level will the EBT of the firm equal to zero? [7]

8. (a) "To make the data turn into user friendly information, it should go through six core steps" – discuss. [7]

(b) Describe Data Analytics and the steps involved in Data Analytics. [7]