INTERMEDIATE EXAMINATION **SET 1**

MODEL QUESTION PAPER **TERM – DEC 2024**

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 x 2 = 30]**

(i) _____ represents that portion of Total Risk which is attributable to factors that affect the market as a whole.
(a) Systematic Risk
(b) Unsystematic Risk
(c) Purchasing Power Risk
(d) None of the above

(ii) If the rate of interest is 12%, what are the doubling periods as per the rule 72 and the rule of 69 respectively?
(a) 5 Years and 5.2 Years
(b) 5.8 Years and 5.3 Years
(c) 6 Years and 6.1 Years
(d) 6.5 Years and 6.6 Years

(iii) The first computerised online stock exchange in India was:
(a) NSE
(b) OTCEI
(c) BSE
(d) MCX

(iv) What is the value of a levered firm L Ltd. if it has the same EBIT as an unlevered firm U Ltd., (with value of ₹ 700 lakh), has a debt of ₹ 200 lakh, tax rate is 35% under M-M approach?
(a) ₹ 770 Lakh
(b) ₹ 500 Lakh
(c) ₹ 630 Lakh
(d) ₹ 900 Lakh

(v) Higher net working capital leads to _____ (higher / lower) liquidity and higher profitability.
(a) Higher
(b) Lower
(c) No Changes in
(d) None of the above

(vi) T Ltd. requires ₹ 3 million in cash for meeting its transaction needs over the next 6 months, its planning horizon for liquidity decision. The company currently has the amount in the form of marketable securities. The cash payment will be made evenly over the six month period. T Ltd. earns 12% annual yield on its marketable securities. Conversion and marketable securities into cash entails a fixed cost of ₹ 1000 per transaction. What will be the optimal conversion size as per Baumol model of cash management?

(a) ₹ 315,628
(b) ₹ 316,228
(c) ₹ 317,678
(d) ₹ 318,426

(vii) SISFS stands for _____.

(a) Start-up India Seed Fund Strategy
(b) Start-up India Seed Financial Strategy
(c) Start-up India Seed Financial Scheme
(d) Start-up India Seed Fund Scheme

(viii) The following information is given for a project:
Annual cash inflow ₹ 8,00,000, Useful life 4 years. Payback period 2.855 years.
The cost of the project would be -

(a) ₹ 22,80,000
(b) ₹ 22,84,000
(c) ₹ 22,86,000
(d) ₹ 22,87,800

(ix) Every debt instrument has _____.

(a) A face value
(b) A maturity value
(c) A face value as well as a maturity value
(d) Liquidity value

(x) If the current ratio is 2.4:1 and working capital is ₹ 25,20,000, find the amount of current assets and current liabilities.

(a) Current Assets ₹ 43,20,000 and Current Liabilities ₹ 18,00,000
(b) Current Assets ₹ 44,00,000 and Current Liabilities ₹ 18,50,000
(c) Current Assets ₹ 45,50,000 and Current Liabilities ₹ 19,00,000
(d) Current Assets ₹ 46,60,000 and Current Liabilities ₹ 19,30,000

(xi) A project has a 10% discounted payback of 2 years with annual after-tax cash inflows commencing from year end 2 to 4 of ₹400 lakh. How much would have been the initial cash outlay which was fully made at the beginning of year 1?

(a) ₹ 400 lakh
(b) ₹ 422 lakh
(c) ₹ 452 lakh

(d) ₹ 497.20 lakh

(xii) XBRL is the abbreviated form of:
(a) eXtensible Business Reporting Language
(b) eXtensive Business Reporting Language
(c) eXtended Business Reporting Language
(d) eXtensive Business Reporting Language

(xiii) The geometric distribution is a discrete distribution that assesses:
(a) the probability of the occurrence of the first success
(b) the probability of the occurrence of the second success
(c) the probability of the occurrence of the third success
(d) the probability of the occurrence of the less success

(xiv) A scatter plot displays several unique data points:
(a) On a single graph.
(b) On two different graphs
(c) On four different graphs
(d) None of the above.

(xv) 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 EBIT increase by 2.896, the EPS will increase by 1%
(c) If sales rise by 1%, EBIT will rise by 2.8%
(d) None of the above.

SECTION – B

(Answer any five questions out of seven questions given. Each question carries 14 Marks.) **[5x14=70]**

2. (a) Explain the Registration requirement of NBFCs'. Describe what is residuary Non-Banking Company (RNBC). **[7]**

(b) Describe the data mining. Explain the applications of data mining techniques in finance and management. **[7]**

3. (a) The following is the summary of Financial Ratios and form of a Textile Company having a sale of ₹ 32 lakh:

Sales to net worth (times)	2.3
Current debt to net worth (%)	42
Total debt to net worth (%)	75

Current ratio(times)	2.9
Net sales to inventory (times)	4.7
Fixed asset to net worth (%)	53.2

Performa Balance Sheet (Amount in ₹)

Net worth	--------	Fixed assets	-----
Long –term debt	--------	Cash	-----
Current debt	--------	Stock	-----
		Sundry debtors	5,68,889
	-----		-----

Calculate the missing amount of Performa balance sheet. **[7]**

(b) The following is the Balance Sheet of Gama Limited for the year ending March 31, 2023 and March 31, 2024:

Balance Sheet as on 31st March

Particulars	2023 (₹)	2024 (₹)
Capital and Liabilities:		
Share Capital	6,75,000	7,87,500
General Reserves	2,25,000	2,81,250
Capital Reserve (Profit on Sale of Investment)	– 1,12,500	11,250
Profit & Loss Account	3,37,500	2,25,000
15% Debentures	11,250	2,25,000
Accrued Expenses	1,80,000	13,500
Creditors	33,750	2,81,250
Provision for Dividends	78,750	38,250
Provision for Taxation		85,500
Total	16,53,750	19,48,500
Assets:		
Fixed Assets	11,25,000	13,50,000
Less: Accumulated depreciation	2,25,000	2,81,250
Net Fixed Assets	9,00,000	10,68,750
Long – Term Investments (at cost)	2,02,500	2,02,500
Stock (at cost)	2,25,000	3,03,750
Debtors (net of provision for doubtful debts of ₹ 45,000 and ₹ 56,250 respectively for 2023 and 2024 respectively)	2,53,125	2,75,625
Bills receivables	45,000	73,125
Prepaid Expenses	11,250	13,500
Miscellaneous Expenditure	16,875	11,250
Total	16,53,750	19,48,500

Additional Information:

1. During the year 2023-24, fixed assets with a net book value of ₹ 11,250 (accumulated depreciation, ₹ 33,750) was sold for ₹ 9,000.
2. During the year 2023-24, Investments costing ₹ 90,000 were sold, and also Investments costing ₹ 90,000 were purchased.
3. Debentures were retired at a Premium of 10%.
4. Tax of ₹ 61,875 was paid for 2022-23.
5. During the year 2023-24, bad debts of ₹ 15,750 were written off against the provision for Doubtful Debt account.
6. The proposed dividend for 2022-23 was paid in 2023-24.

Prepare a Funds Flow Statement (Statement of changes in Financial Position on working capital basis) for the year ended March 31, 2024. **[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	34,000
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) Jamia Ltd. has on its book the following amounts and specific costs of each type of capital:

Type of capital	Book value (₹)	Market value (₹)	Specific cost (%)
Debt	8,00,000	7,60,000	5

Preference	2,00,000	2,20,000	8
Equity	12,00,000	18,00,000	15
Retained earnings	4,00,000	6,00,000	13
	26,00,000	33,80,000	

Calculate the weighted average cost of capital using book and market value weights. **[7]**

5. (a) A plastic manufacturer has under consideration the proposal of production of high quality plastic bowl. The necessary equipment to manufacture the bowl would cost ₹ 2 lakhs and would last 5 years. The tax relevant rate of depreciation is 20% on written down value. There is no other asset in the block. The expected salvage is ₹ 20,000. The bowl can be sold at ₹ 4 each. Regardless of the level of production, the manufacturer will incur cash cost ₹ 50,000 each year if the project is undertaken. The overhead costs allocated to this new line would be ₹ 10,000. The variable costs are estimated at ₹ 2 per bowl. The manufacturer estimates it will sell about 1,50,000 bowl per year ; the tax rate is 35% .

Advice the management whether the proposed equipment should be purchased or not. Assume 20% cost of capital and additional working capital requirement, ₹1,00,000. **[7]**

(b) A limited company is considering investing a project requiring a capital outlay of 2,00,000. Forecast for annual income after depreciation but before tax is as follows:

Year	(₹)
1	1,00,000
2	1,00,000
3	80,000
4	80,000
5	40,000

Depreciation may be taken as 20% on original cost and taxation at 50% of net income. You are required to evaluate the project according to each of the following methods:

1. Payback period method
2. Rate of return on original investment method
3. Rate of return on average investment method
4. Discounted cash flow method taking cost of capital as 10%
5. Net present value index method
6. Internal rate of return method.
7. Modified internal rate of return method. **[7]**

6. (a) Calculate "Maximum Bank Borrowings" permissible under Method I, II & III of Tandon Committee norms from the following figures and Analyse each method.

Current Liabilities	₹ in lakh	Current Assets	₹ in lakh
Creditors for purchases 200 Other current liabilities 100	300	Raw materials	400
Bank borrowings including bills discounted with bankers	400	Work in progress	40
		Finished goods	180
		Receivable including bills discounted with bankers	100
		Other current assets	20
Total	700		740

Assume core current assets are ₹190 lakhs. **[7]**

(b) A firm is considering pushing up its sales by extending credit facilities to the following categories of customers:

(i) Customers with a 10% risk of non-payment, and

(ii) Customers with a 30% risk of non-payment.

The incremental sales expected in case of category (i) are ₹ 40,000 while in case of category (ii) they are ₹ 50,000. The cost of production and selling costs are 60% of sales while the collection costs amount to 5% of sales in case of category (i) and 10% of sales in case of category (ii).

Examine and analyze whether the firm has to extend credit facilities to each of the above categories of customers. **[7]**

7. (a) Bangabasi Ltd. belongs to a risk-class for which the appropriate capitalisation rate is 10%. It currently has outstanding 2000 equity shares of ₹100 each. The firm is contemplating the declaration of dividend of ₹8 per share at the end of the current financial year. It expects to have net earnings of ₹20,000 and has a proposal for making new investment of ₹24,000. Examine and show that under the Modigliani–Miller assumption, the payment of dividend does not affect the value of the firm. **[7]**

(b) Calculate the operating leverage for each of the four firms P,Q,R and S from the following price and cost data. Analyze the relationship between levels of fixed costs and the resulting degree of operating leverage? Assume number of units sold is 10,000.

Particulars	Firms			
	P	Q	R	S
Sales price per unit	₹20	₹32	₹50	₹70

Variables cost per unit	₹6	₹16	₹20	₹50
Fixed operating cost	₹1,60,000	₹80,000	₹4,00,000	Nil

[7]

8. **(a)** Describe Quantitative Financial Data and Qualitative Financial Data. Explain Nominal Scale and Ratio Scale in the context of types of data. **[7]**

(b) Describe how we can do data Visualisation in the right way. **[7]**