FINAL EXAMINATION SET - 1

MODEL QUESTION PAPER TERM – DEC 2024

PAPER – 20A SYLLABUS 2022

STRATEGIC PERFORMANCE MANAGEMENT AND BUSINESS VALUATION

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) The ________ ratios are used to compare financial statements of different size companies or the same company over different periods.

(A) Common size
(B) DuPont
(C) Liquidity
(D) P/E

(ii) Trend analysis is an important tool of financial statement analysis and is also known as ______.

(A) Horizontal analysis
(B) Vertical analysis
(C) Pyramid method
(D) None of the above

(iii) Market price per share of a firm having equity capital of ₹ 100,000 consisting of shares of ₹ 10 each, profit after tax of ₹ 82,000 & P/E ratio of 8 is:

(A) ₹65.70
(B) ₹10.25
(C) ₹65.60
(D) ₹1.025

(iv) X ltd has ₹ 100 crores worth of common equity on its balance sheet comprising of 50 lakhs shares. The company's market value Added (MVA) is ₹ 24 crores. What is company's stock price?

(A) 230
(B) 238
(C) 248
(D) 264

(v) Reverse mapping is a bottom up approach used in ______.

(A) Strategy formulation
(B) Strategy implementation

(C) Formulation of operational plan
(D) Formulation of tactical plan

(vi) X Ltd.'s share beta factor is 1.40. The risk free rate of interest on government securities is 9%. The expected rate of return on the company equity shares is 16%. The cost of equity capital based on CAPM is:
(A) 15.8%
(B) 16%
(C) 18.8%
(D) 9%

(vii) Given the following information for a business:
Asset turnover = 3.50
Equity multiplier = 1.00
Return on equity = 30%
Using the DuPont analysis, the net profit margin is ___________
(A) 8.57%
(B) 5.87%
(C) 7.65%
(D) 6.75%

(viii) If an all equity firm has cash from operating Activities amounting to ₹ 60 lakhs, Depreciation ₹ 30 lakhs, increase in non-cash working capital ₹25 lakhs and capital expenditure ₹ 20 lakhs, its Free cash flows to Equity amounts to (in ₹ Lakhs):
(A) ₹40 lakhs
(B) ₹45 lakhs
(C) ₹60 lakhs
(D) ₹90 lakhs

(ix) The valuation approach, inputs and assumptions applied are highly________ on the selected premise of value.
(A) Dependent
(B) Independent
(C) Dependent
(D) None of the Above

(x) Given the growth rate in the dividends is expected to be 8%. The Beta of the Stock is 1.60 and return on the market index is 13%. The required rate of return would be:
(A) 14%
(B) 16%

(C) 18%
(D) 20%

(xi) Anita, a valuer is evaluating Axis Ltd and expects that the company will give its first dividend of ₹15 after 2 years from now. In the subsequent year, the dividend is expected at ₹16 which is expected to grow at 7 percent. The Risk-Free rate is assessed at 6 percent. The Equity Risk Premium is 7 percent and the Beta applicable to Axis Ltd is 0.95. According to Anita, which of the following would be the value of Axis Ltd?
(A) ₹235
(B) ₹247
(C) ₹295
(D) ₹270

(xii) Reliance Motors shares are expected to pay dividends of ₹1.50, ₹ 1.60, and ₹1.75 at the end of each of the next three years, respectively. The investor expects the price of the shares at the end of this 3-year holding period to be ₹ 54.00. The investor's required rate of return is 15%. The current value of Reliance Motors' shares is closest to:
(A) ₹37.00
(B) ₹39.17
(C) ₹41.00
(D) ₹38.00

(xiii) Fair Value is defined as the price that would be received to sell an asset or paid to transfer a liability in an ____________ between market participants at the measurement date.
(A) Orderly transaction
(B) Disorderly transaction
(C) Any of the above
(D) None of the above.

(xiv) Which one of the following cannot be classified as systematic risk?
(A) Interest rate risk
(B) Political risk
(C) Credit risk
(D) Foreign exchange risk

(xv) If the Value of target Co. is ₹ 500 Million and the value of acquiring company is ₹ 800 Million. Present value of cost savings if the two companies are merged together is ₹ 100 million. Acquiring company expects the cost of integration as ₹ 80 million and the shareholders of Target Co. are expecting a deal premium to be paid of 15 percent over their company's value. What is the value of the combined entity?

(A) ₹ 1,400 million
(B) ₹ 1,345 million
(C) ₹ 1,445 million
(D) ₹ 1,540 million

SECTION – B

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

[5x14=70]

2. **(a)** Explain the five misrepresentation of Customer –Relationship –Management (CRM). **[7]**

(b) Summarize the four perspective of Balanced Score Card (BSC). **[7]**

3. **(a)** A manufacturer can sell 'Q' items ($Q > 0$) at a price of ($330 - Q$) each; the cost of producing Q items is $TC(Q) = Q^2 + 10Q + 12$. Calculate how many items he should sell to make the maximum profit and also calculate the maximum profit. **[7]**

(b) Explain the Risk Management and the objectives of it. Describe how risk is reduced through diversification in the context of enterprise risk management. **[7]**

4. **(a)** Describe RONA (Return on Net Assets) and its implications in details. **[7]**

(b) Mr. Hajime is considering investing in bonds of two companies; Lotus Inc. and Woodex Inc. He has a recently received a sum of ₹ 35,50,000 from sale of a market related insurance product which he invested in 10 years back. He is nearing retirement age and desire to undertake minimal risk in his investment. He is also worried about the default risk associated with his investment and desire to assess the chance of the company (in which he invests) going bust. For the purpose of the financial assessment he recalls his childhood friend Simmamoto who is currently into financial consultancy. He requests her to assess the bankruptcy risk associated with the two companies; Lotus Inc. and Woodex Inc. For the purpose she looks into the financial statements of the two companies which are extracted from the annual reports and are given below;

Relevant particulars from the annual reports of Lotus Inc and Woodex Inc.

Particular	Lotus Inc.	Woodex Inc.
	Amount	Amount

Working Capital	₹10,00,000	₹20,00,000
Retained Earnings	₹5,00,000	₹9,50,000
Earnings Before Interest and Taxes	₹7,50,000	₹7,50,000
Market Value of Equity	₹15,00,000	₹18,00,000
Sales	₹12,00,000	₹15,00,000
Total Assets	₹10,00,000	₹12,00,000
Total Liabilities	₹10,00,000	₹12,00,000

Calculate which company is safer to invest by using Altman Z score and why.

[7]

5. **(a)** Ratnakar Ltd. agrees to buy over the business of JSB Ltd. effective 1st April, 2023. The summarized Balance Sheet of Ratnakar Ltd. as on 31st March 2023 are as follows:

Balance Sheet as at 31st March, 2023 (In crores)

Liabilities	Ratnakar (₹)	JSB (₹)
Paid up Share Capital		
Equity Shares of ₹100 each	350	-
Equity Shares of ₹10 each	-	6.5
Reserve & Surplus	950	25
Total	1300	31.5
Assets		
Net Fixed assets	220	0.5
Net Current assets	1020	29
Deferred current asset	60	2
Total	1300	31.5

Ratnakar Ltd. proposes to buy out JSB Ltd. and the following information is provided to you as a part of the scheme of buying:

(1) The weighted average post tax maintainable profits of Ratnakar Ltd. and JSB Ltd. for the last 4 years are INR 300 crores and ₹10 crores respectively.

(2) Both the companies envisage a capitalization rate of 8%.

(3) Ratnakar Ltd. has a contingent liability of ₹300 crores as on 31st March, 2023.

(4) Ratnakar Ltd. to issue shares of ₹100 each to the shareholders of JSB Ltd. in terms of the exchange ratio as arrived on the share value basis. (Please Consider weights of 1 & 3 for the value of shares arrived on Net Asset basis and Equity Capitalization method respectively for Ratnakar Ltd. & JSB Ltd.

Calculate the value of the shares of both Ratnakar Ltd. and JSB Ltd. under:

A) Net Asset Value method

B) Earnings Capitalization Method

C) Exchange ratio of shares of Ratnakar Ltd. to be issued to the shareholders of JSB Ltd on a Fair value basis (taking into consideration the assumptions mentioned in point 4 above).

(b) A valuer has obtained the following information regarding Infolink Ltd:

Number of equities shares outstanding	₹ 300,000
Market price per share	₹ 20
Market value of Preference Shares	₹ 15,00,000
Market value of debt	₹ 35,00,000
Cash and short-term investments	₹ 8,00,000
Revenues	₹ 95,00,000
Depreciation and amortization expense	₹ 6,00,000
Interest expense	₹ 1,00,000
Taxes	₹ 3,50,000
Net Profit	₹ 14,00,000

(i) Calculate the EV/EBITDA Ratio.

(ii) E-Link Ltd has reported an EBITDA of ₹27,00,000 and is a comparable company to Infolink Ltd. Calculate the Enterprise Value of E-Link Ltd. **[7]**

6. (a) V. Goel, the current Copyright holder of the book "Business Valuation, Practitioners' Guide valuation of Companies" is willing to sell the copyrights of his book to a publisher who is keen to buy the copyrights. The following assumptions may be relevant.

Currently, 2500 copies of the book are sold at an annual price of ₹1,750 per book. The cost of production, distribution and author royalties amount to 70% of Sales. The book is becoming popular and the publisher estimates that the sales of the book may increase by 5 % every year for the next 5 years and for 2 % from year 6 to 10. This is including the newer editions of the same book. However, after 5 years, given the introduction of other books on the same subject, dilution of exclusivity, violation of copyrights and plagiarism, there may not be any special advantage from the book beyond year 10. Assuming a discount rate of 10 %, assess the value of the copyrights. **[7]**

(b) Following is the Profit and Loss Account and Balance Sheet for M/s Henry Ltd.

(₹ in Lakhs)

Particulars	2023	2024
Turnover	652	760
Pre-tax accounting profit 134 168	134	168
Taxation	46	58
Profit after tax	88	110
Dividends	30	36
Retained earnings	58	74

Balance Sheet extracts are as follows:

(₹ in lakhs)

Particulars	2023	2024
Fixed Assets	240	312
Net current assets	260	320
Total	500	632
Equity Shareholders funds	390	472
Medium and long-term bank loan	110	160

The Companies performance in regard to turnover had increased by 17% along with increase in pre-tax profit by 25% but shareholders are not satisfied by the company's preference in the last 2 years. Calculate economic value added as suggested by M/s. Stern Stewerts & Co., USA, so that reasons of nonsatisfaction can be evaluated.

You are also given-

SN.	Particulars	2023	2024
1.	Pre-tax cost of debt	9%	10%
2.	Cost of equity	15%	17%
3.	Tax rate	35%	35%
4.	Interest expense (₹ in lakhs)	₹8	₹12

[7]

7. (a) Two firms RAJJAN and REKHA Corporation operate independently and have the following financial statements:

Particulars	Rajjan	Rekha
Revenue	8,00,000	4,00,000
Cost of Goods Sold (COGS)	6,00,000	2,40,000
EBIT	2,00,000	1,60,000
Expected growth rate	6%	8%
Cost of capital	10%	12%

Both firms are in steady state, with capital spending offset by depreciation. No working capital is required, and both firms face a tax rate of 40%. Combining the two firms will create economies of scale in the form of shared distribution and advertising cost, which will reduce the cost of goods sold from 70% of revenues to 65% of revenues. Assume that the firm has no debt capital. Calculate:

(i) The value of the two firms before the merger;

(ii) The value of the combined firm with synergy effect. **[7]**

(b) The following information is provided related to the acquiring firm Big Limited and the target firm Tall Limited:

	Big Ltd.	Tall Ltd.
Profit after tax (PAT)	₹ 2,000 Lakhs	₹ 400 Lakhs
Number of Shares outstanding	200 Lakhs	100 Lakhs
P/E ratio	10	5

You are required to calculate -

(i) What is the swap ratio based on current market price?

(ii) What is the EPS of Big Ltd after acquisition?

(iii) What is the expected market price per share of Big Limited after acquisition, assuming P/E ratio of Big Limited remains unchanged?

(iv) The market value of the merged firm.

(v) Gain/loss for shareholder of the two independent companies after acquisition.

[7]

8. (a) If, Earnings per share: ₹ 3.15;

Capital Expenditure per share: ₹ 3.15.

Depreciation per share: ₹ 2.78

Change in working capital per share: ₹ 0.50

Debt financing ratio: 25%

Earnings, Capital expenditure, Depreciation, Working Capital are all expected to grow at 6% per year. The beta for stock is 0.90. Treasury bond rate is 7.5%. A premium of 5.50% is used for market. Identify the value of stock. **[7]**

(b) Company X is contemplating the purchase of Company Y, Company X has 3,00,000 shares having a market price of ₹ 30 per share, while Company Y has 2,00,000 shares selling at ₹ 20 per share. The EPS are ₹ 4.00 and ₹ 2.25 for Company X and Y respectively. Managements of both companies are discussing two alternative proposals for exchange of shares as indicated below:

A) in proportion to the relative earnings per share of two Companies.
B) 0.5 share of Company X for one share of company Y (0.5: 1).

You are required:

(i) to calculate the Earnings Per Share (EPS) after merger under two alternatives; and

(ii) to assess the impact on EPS for the shareholders of two companies under both alternatives. **[7]**