FINAL EXAMINATION

December 2023

P–20A(SPMBV)
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.

All workings must from part of the answer.

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

Section-A

Answer to *Question No. 1* which is compulsory

1. **Choose the correct answer from the given alternatives:** 2×15=30

(i) If the proportionate change in the price is more than the proportionate change in the demand, it is called

(A) Relatively inelastic demand.

(B) Relatively elastic demand.

(C) Perfectly inelastic demand.

(D) Perfectly elastic demand.

(ii) It is assumed that M. Ltd, would realize ₹ 40 million from the liquidation of its assets. It pays ₹ 20 million to its Creditors and Preference Shareholders in full and final settlement of their claims. If the number of equity shares of M. Ltd. is 2 million, the liquidation value per share would be

(A) ₹ 1 per share

(B) ₹ 10 per share

(C) ₹ 12 per share

(D) ₹ 15 per share

(iii) **Given:** The growth rate in the dividends is expected to be 8%. The Beta of the stock is 1.60 and the return on the market index is 13%. The required rate of return would be

(A) 14%

(B) 16%

(C) 18%

(D) 20%

(iv) Performance will be a product of ________________.

(A) Efficiency and Utilization

(B) Utilization and Productivity

(C) Efficiency and Productivity

(D) Efficiency, Utilization and Productivity

(v) If the divestiture value is greater than the present value of the expected cash flows, the value of the divesting firm will _______________.

(A) increase on the divestiture

(B) decrease on the divestiture

(C) remain same on the divestiture

(D) None of the above

(vi) Under perfect competition and at the point of equilibrium of firm

(A) MC curve must be falling.

(B) MC curve must be rising.

(C) MR curve must be falling.

(D) None of the above

(vii) The demand curve for X is given by the equation: $P = 24 - 1/2\sqrt{q}$ where P & q denote price and quantity respectively. Find the price point elasticity for P = ₹ 20.

(A) 64

(B) 48

(C) 72

(D) 60

(viii) RICO Ltd. has PAT of ₹ 40.20 lakh with extra ordinary income of ₹ 7.00 lakh. If the cost of capital is 20% and the applicable tax rate is 40% the value of Rico Ltd. will be

(A) ₹ 250 lakh

(B) ₹ 180 lakh

(C) ₹ 150 lakh

(D) Insufficient information

(ix) A bottom-up approach used in strategy formulation is known as _______________.

(A) strategy implementation

(B) formulation of operational plan

(C) formulation of tactical plan

(D) reverse mapping

(x) The probability of a product's failure in relation to a time frame is categorized as the dimension of _______________.

(A) Conformance

(B) Durability

(C) Reliability

(D) Aesthetics

(xi) Monopolistic competition and Oligopoly are the examples of ________________ market.

(A) perfect

(B) imperfect

(C) no market structure.

(D) All of the above

(xii) Net Income ₹ 1650; Interest Expenses ₹ 20; Tax on Income ₹ 900; Cash Sales ₹ 5000 and Credit Sales ₹ 2100, in this case what would be the DuPont Return on Equity?

(A) 0.33

(B) 0.23

(C) 0.36

(D) 0.51

(xiii) Net operating profit before tax 1 crore, Net operating profit after tax ₹ 98 lakh, Weighted average cost of capital 11.5%, Average cost of capital 13.5% and total capital ₹ 700 lakhs, then economic value added will be ________________.

(A) 10.50 lakhs

(B) 16.50 lakhs

(C) 17.50 lakhs

(D) 18.75 lakhs

(xiv) Market price of share ₹ 500; earnings per share ₹ 25, dividend per share ₹ 50, what would be earnings yield?

(A) 5%

(B) 10%

(C) 15%

(D) 2%

(xv) A company with PAT of ₹ 60 Crores, Tax Rate 30% plus a cess of 3%, Return on Equity is 20%, Other Equity ₹ 225 Crores, PAT of the company is growing by 8% per year then equity share with a par value of ₹ 10 will have EPS of ________________.

(A) ₹ 2

(B) ₹ 8

(C) ₹ 10

(D) Insufficient information

Section-B: Business Valuation

Answer *any five* questions from *Question No.* 2 to *Question No.* 8 in Section B.

Each question carries 14 marks. 14×5=70

2. (a) Briefly explain three fundamental aspects of CRM to facilitate building relationship with customer. Discuss the impact of CRM initiative on an organization, in terms of enhanced risk that it may face. 7

(b) Explain the objectives of the Management Information system. Discuss different types of reports prepared under such a system. 7

3. (a) Bajaj Ltd., a monopolist, can effectively segment the market into two sub-markets with the demand functions: $P_1 = 300 - 2Q_1$ and $P_2 = 200 - 2Q_2$. If price discrimination is allowed, what is the maximum possible profit that can be earned by the monopolist? 7

(b) Explain the interrelated components of an Enterprise Risk Management framework Advocated by Committee of Sponsoring Organization's (COSO). 7

4. (a) The following financial statements have been extracted from the Annual Report 2022-23 of SURYA TEXTILES Ltd. a largest textile company, having a strong presence in over 80 countries in the world.

The company wants to keep its shareholders happy by giving them a fair rate of return. The company is using return on equity (ROE) as one of the metrics of performance evaluation for determining the return for shareholders. Due to intense competition, in recent years, its ROE is under pressure and to maintain the level of ROE, the company is to change its business Model-in that, it is varying its margin, assets utilization and leverage.

You are required to:

(i) **Carry out** the DuPont Analysis considering the financial parameters given below and show how the return on equity (ROE) of the company is changing due to change in its Margins, Assets utilization and Leverage over the period of four years.

(ii) **Give** your comments on the trend of the said parameters.

Statement of Profit & Loss for year ended March 31

(Amount in ₹ Crore)

	2020	**2021**	**2022**	**2023**
Total Revenue	7998	8992	9976	11804
Profit before tax	1855	1612	1990	2817
Profit after tax	1514	1345	1574	2110
Dividend	225	315	225	225
Tax on dividend	37	51	36	38
Retained earning	1252	979	1313	1847

		2020	**2021**	**2022**	**2023**
	Equity and Liability				
1	Shareholders' fund Share capital Reserve and Surplus	225 8055	225 9034	225 10347	225 12194
2	Non-current liabilities: Loan funds	7	617	17	1352
3	Current liabilities Deferred tax	251	296	324	392
	Total	**8538**	**10172**	**10913**	**14163**
	Assets				
1	Non-current assets: Fixed assets	3774	4369	4685	5276
2	Non-current Investment	371	799	1449	3642
3	Investments-Current Assets	4393	5004	4779	5245
	Total	**8538**	**10172**	**10913**	**14163**

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(b) Using Altman's Model, **compute** the value of Z from the provided data (Balance Sheet extract):

Liabilities	**₹**	**Assets**	**₹**
Share Capital @ ₹10 each	2,00,000	Fixed Assets	4,20,000
Reserves & Surplus	60,000	Inventory	1,80,000
10% Debentures	3,00,000	Book Debts	70,000
Sundry Creditors	80,000	Loans & Advances	20,000
Outstanding Expenses	60,000	Cash at Bank	10,000
Total	**7,00,000**	**Total**	**7,00,000**

Additional Information:

Market value per share ₹ 12.50

Operating Profit (20% on sales) ₹ 1,40,000 7

5. (a) The following information of Achal Ltd. are given:

Current dividend = ₹ 2.50 per share

Discount rate = 10.5%

Growth rate = 2%

Based on the above information of Achal Ltd, you are required to

(i) **Calculate** the present value of stock of Achal Ltd.

(ii) **Assess** stock of Achal Ltd. whether it is overvalued if the stock price is ₹ 35, ROE is 9% and EPS is ₹ 2.25. Support your answer with complete workings. 7

(b) Monika is trying to value Chat App, a Chat Messaging App that currently has 16 million users but does not generate any revenues. She has identified that WhatsApp was recently valued at USD 17.5 billion while having 450 million users. Considering the difference in size, Monika believes that a size discount of 95 percent should be applied while valuing Chat App. The foreign exchange rate is INR 65 per USD. 7

6. (a) You have been asked to find the value of an office building having rateable area 300000 square feet in Bandra, Mumbai based upon 'comparable properties' sold in recent years. There have been six property sales in the surrounding area. Market rent of the building is ₹ 5 per square feet.

Property	Sale Price (**₹ in Crore**)	Occupancy **Rate (%)**	Size (**Square feet in lakhs**)	Gross Rent (**₹ in lakh**)
Ashra	2.00	99	4.00	5.50
Happy Home	1.80	95	4.25	4.75
Pratiksha	2.20	97	4.50	5.10
Bandhan	2.50	96	4.00	5.05
Asha	1.50	92	3.50	4.00
Jeevan Deep	1.20	93	3.00	3.05

Required:

(i) **Estimate** the value of the building based upon price per square feet considering occupancy rate of 94%.

(ii) **Estimate** the value based on price per gross rent. 7

(b) The below information is given about 3 Companies:

Particulars	Company-A	Company-B	Company-C
Debt	1,00,000	50,000	-
Equity (Opening Balance)	1,00,000	1,50,000	2,00,000
Enterprises Value	2,00,000	2,00,000	2,00,000
EBIT	30,000	30,000	30,000
Applicable Interest Rate is 9%			
Applicable Tax Rate is 25%			

Company A trades at a lower P/E Multiple than its peers Company B and Company C. The management of Company A believes that the lower P/E of the Company is not justified. The management team believes the market just doesn't understand its strategy or performance.

Required:

Assuming book values are representative of market values **calculate** the P/E and EV/EBIT of each Company and **assess** whether the management is right in their thought process. 7

7. (a) Radha Limited is intending to acquire Krishna Limited by merger and the following information is available in respect of both the companies:

Particulars	**Radha Limited**	**Krishna Limited**
No. of equity shares	6,00,000	2,00,000
Profit after tax	INR 20,00,000	INR 10,00,000
Market Price Per Share	INR 20	INR 15

Required:

Compute the following:

(i) EPS of both the companies

(ii) Exchange Ratio 7

(b) A Ltd. is considering the acquisition of B Ltd. with stock. Relevant financial information is given below:

Particulars	**A Ltd.**	**B Ltd.**
Present earnings	₹ 7.5 lakhs	₹ 2.5 lakhs
Equity (No. of shares)	4.0 lakhs	2.0 lakhs
EPS	₹ 1.875	₹ 1.25
P/E ratio	10	5

Required:

Answer the following questions:

(i) What is the market price of each company?

(ii) What is the market capitalization of each company?

(iii) If the P/E of A Ltd. changes to 7.5, what is the market price of A Ltd.?

(iv) Does market value of A Ltd. change? 7

8. (a) The following information is provided relating to the acquiring company X Ltd. and the target company Y Ltd.

	X Ltd.	**Y Ltd.**
No. of shares (F.V. ₹ 10 each)	10.00 lakhs	7.50 lakhs
Market capitalization (in ₹)	500.00 lakhs	750.00 lakhs
P/E ratio (times)	10	5
Reserve and surplus (in ₹)	300.00 lakhs	165.00 lakhs
Promoter's holding (No. of shares)	4.75 lakhs	5.00 lakhs

Board of Directors of both the companies have decided to give a fair deal to the shareholders and accordingly for swap ratio the weights are decided as 40%, 25% and 35% respectively for Earnings, Book value and Market price of share of each company:

Required:

(i) **Calculate** the swap ratio and also calculate Promoter's holding percentage after acquisition.

(ii) **What** is the EPS of X Ltd. after acquisition of Y Ltd?

(iii) **What** is the expected market price per share and market capitalization of X Ltd. after acquisition, assuming P/E ratio of firm X Ltd. remains unchanged?

(iv) **Calculate** free float market capitalization of the merged firm. 7

(b) XY Ltd., a retail florist, is for sale at an asking price of ₹ 62,00,000. You have been contacted for a potential buyer who has asked you to give him opinion as to whether the asking price is reasonable. The potential buyer has only limited information about XY Ltd. And potential buyer does not know that annual gross sales of XY Ltd. is about ₹ 82,00,000 and that last year's tax return reported an annual profit of ₹ 8,40,000 before tax. You have collected the following information from the financial details of several retail florists that were up for sale in the past:

Table 1

Particulars	Price-to-sale (P/S) ratio	Price-to-earnings (P/E) ratio
Number of firms	38	33
Mean ratio	0.55	3.29
Coefficient of Variation	0.65	1.52
Maximum ratio	2.35	6.29

Table 2: Top 10 players in descending P/S order:

Firm	1	2	3	4	5	6	7	8	9	10
(P/S) ratio	2.35	1.76	1.32	1.17	1.09	1.01	0.96	0.85	0.72	0.68
(P/E) Multiple	5.65	6.29	5.31	4.6	3.95	3.25	3.1	2.96	2.9	2.75

Required:

Offer your opinion on the reasonableness of the asking price. 7