FINAL EXAMINATION

June 2024

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 form part of the answer.

Wherever 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. (a) **Choose the correct answer from the given alternatives.** **2×10=20**

(i) Which principle/technique is considered base platform for TPM?

(A) Six Sigma

(B) 5S

(C) SMED

(D) Kaizen

(ii) The pricing of niche products is appropriate to

(A) Perceived value pricing

(B) Penetration pricing

(C) Differential pricing

(D) Full cost pricing

(iii) Which of the following is/are not the element(s)/parameter of NCAER model of corporate distress prediction?

(A) Net Worth Position

(B) Outstanding Liability Position

(C) Net Working Capital Position

(D) Cash Profit Position

(iv) Balance Score Card is a set of __________ measures relating to company's critical success factors.

(A) Financial

(B) Non-financial

(C) Financial and non-financial

(D) None of the above

(v) The asset turnover is a measure of ____________ which measures how efficiently a company uses its assets to generate sales.
(A) profitability
(B) productivity
(C) Both (A) and (B)
(D) None of the above

(vi) Market price of share ₹ 50, earnings per share ₹ 22.20, dividend per share ₹ 12.5 then what would be the price earnings ratio?
(A) 2.25
(B) 4
(C) 6.25
(D) 10.25

(vii) An analyst has estimated ₹ 450 crore as future maintainable profits for Super Shine Limited. If the expected rate of return on capital employed is 15% and the Average Capital Employed is ₹ 1200 crore, the goodwill of Super Shine Limited at 4 years purchase will be
(A) ₹ 180 crore
(B) ₹ 270 crore
(C) ₹ 1,080 crore
(D) ₹ 1,200 crore

(viii) A Company has reported Profit Before Tax ₹ 1,000 crore. The applicable tax rate is 30% and it has ROE (Return on Equity) of 14%. If it has Other Equity of ₹ 4,000 crore and the face value of the share is ₹ 10, then its EPS (Earnings Per Share) is
(A) ₹ 2
(B) ₹ 5
(C) ₹ 7
(D) Insufficient Information

(ix) A Company's share is currently trading in the market at ₹ 450. It is estimated that its cost of equity is 18% and the value of growth opportunities is ₹ 250. Then, its Price/Earnings Ratio will be
(A) 11.11
(B) 12.25
(C) 12.50
(D) None of the above

(x) If a person buys a five year bond in which he can realize a coupon rate of 5%, but the rate of inflation is 8%, the purchasing power of the bond interest has ________.
(A) increased
(B) declined
(C) no effect on purchasing power
(D) all of these depend upon the market situation

(b) Read the following scenario and answer the following questions:

There are four firms (A, B, C and D) which operates under similar conditions and are comparable. The top management of Firm B is worried about the profitability of the firm and anticipates that the firm's operational efficiency is relatively poor which is projected in declining market share of the company as well as other operational ratios.

Miss Lizi, the cost accountant of Firm B has been authorized by the top management to look into the matter and report back. Miss Lizi is able to extract the following data of the four firms.

Firm	Capital Employed (₹ in Millions)	Value added (₹ in Millions)
A	8.6	1.8
B	2.2	0.2
C	15.6	2.8
D	31.6	4.1

She is of the opinion that the value added is the comparable output and the capital employed is the comparable input. Accordingly, she extracts the data of the two variables across the four firms.

Choose the correct option from the given alternatives based on the above scenario: 2×5=10

(xi) Which firm has the highest efficiency?

(A) A

(B) B

(C) C

(D) D

(xii) Relative efficiency of Firm B is

(A) 85.88

(B) 43.40

(C) 62.08

(D) 100

(xiii) For inefficient firm,

(A) Input Target = Actual Input

(B) Input Target > Actual Input

(C) Input Target < Actual Input

(D) Input Target = Input Slack

(xiv) Input slack for Firm B is

(A) 2.2

(B) 1.245

(C) 0

(D) 0.955

(xv) Output Target for Firm B is

(A) ₹ 0.46 million

(B) ₹ 0.26 million

(C) ₹ 0.95 million

(D) ₹ 0.80 million

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) Discuss the four perspectives of Balance Score Card (BSC) for measuring organizational performance. What are the limitations of BSC? 7

(b) Six sigma delivers better and effective results than total quality management. In the light of the statement differentiate between Six Sigma and Total Quality Management. 7

3. (a) A company sells one of its products in the domestic as well as in the export market. The relationship between price and demand in the two different markets are as under:
Domestic market: 136- 8 Q1
Export Market: 228-20 Q2,
where Q1 and Q2 represent quantity of demand in '000 units.
The variable cost per unit of the product is represented by 38-Q where Q= Q1+Q2
Find the optimum selling price and total contribution for domestic market and export market. 7

(b) What is Value at Risk (VaR)? What are its advantages? Discuss its limitations. 7

4. (a) The Net profit margin of Ruhi Ltd., Jammu is 5.95%; Operating Efficiency by using asset turnover ratio is 4.40. Total debts of the organization ₹ 3,80,000 and Equity capital is ₹ 10,00,000. If benchmark of the industry with expectations of the investors is

(i) 25% and

(ii) 40%, suggest the causes of Low/High Return on Equity by using Dupont analysis. 7

(b) The following financial information has been taken from the Annual Report 2024 of FinPoor Limited:

Balance Sheet of Stress Limited as at March 31, 2024

ASSETS:	**₹ in crore**
Non-Current Assets	
Property, Plant and Equipment	1,654.11
Intangible Assets	375.15
Other Non-Current Assets	388.18
Total Non-Current Assets	2,417.44
Current Assets	
Inventories	128.56
Financial Assets excluding Cash and Cash Equivalent	85.36
Cash and Cash Equivalent	6.85
Other Current Assets	568.93
Total Current Assets	789.70
Total Assets	3,207.14
EQUITY AND LIABILITIES:	
Equity	
Equity Share Capital	362.75
Other Equity	-568.94
Net Worth	-206.19
Non-Current Liability	
Financial Liabilities	1,203.00
Provisions	112.63
Other Non-Current Liabilities	46.59
Total Non-Current Liabilities	1,362.22
Current Liabilities	
Financial Liabilities	1,721.65
Provisions	95.25
Other Current Liabilities	234.21
Total Current Liabilities	2,051.11
Total Equity and Liabilities	3,207.14

Additional Information:

Depreciation written off – ₹ 28 crore

Preliminary Expenses written off – ₹ 11.60 crore.

Net Loss during the FY 2023-24 – ₹ 58.70 crore.

Using the NCAER Model for Corporate Distress Prediction, you are required to ascertain the stage of sickness. 7

5. (a) A firm has 10,000 shares of ₹ 100 each listed on Bombay Stock Exchange. The Earning per share is ₹ 19 and the market price of the shares is ₹ 140 per share. All shares are outstanding. Capital structure of the firm is divided into equity and debts. Book value of debts is ₹ 4,00,000 while the market value of debts was ₹4,50,000. The firm maintains cash and equivalent to cash ₹ 40,000. The profit of the firm was ₹ 1,50,000 without considering the depreciation of ₹ 30,000. Current assets and fixed assets are ₹ 7,00,000. All information about the firm is related to the financial year 2023-24. You are required to **compute** the enterprise value. 7

(b) Laxmi Electronics Ltd. reported a profit of ₹ 105 lakh after 30% tax for the financial year 2023-24. An analysis of the accounts revealed that the income included extraordinary items of ₹ 42 lakh and an extraordinary loss of ₹ 4 lakh. The existing operations, except the extraordinary items, are expected to continue in the future. In addition, the results of the launch of the new product 'Raghu TV' are expected to be as follows:

Sales ₹ 70 lakh; Material and Labour cost as variable costs ₹ 25 lakh; Fixed cost ₹ 17 lakh.

You are required to-

(i) **Assess** the value of business given that the capitalization rate is 14%.

(ii) If the EPS of Laxmi Electronics Ltd is ₹ 4.7 and the price earnings ratio is 10 times, then what would be the market price of share? 7

6. (a) From the following information in respect of Ranjan Ltd. compute the value of employees of the organization:

Age	No.	Average Annual Earnings (₹)
30-39	100	3,00,000
40-49	50	4,00,000
50-59	30	5,00,000

The retirement age is 60 years. The future earnings have been discounted at 10%. For computing the total value of human factor lowest age value of each class range is to be taken.

Annuity Factors at 10% discounting rate are as follows:

5 Years	10Years	15Years	20Years	25Years	30Years
3.791	6.145	7.606	8.514	9.077	9.427

7

(b) Consider A Ltd that has assets in place in which it has capital invested of ₹ 100 crores. Assume the following further facts about the firm:

The NOPAT on assets in place is ₹ 15 crore. This return on capital of 15% is expected to be sustained in the future, and the company has a cost of capital of 10%.

At the beginning of each of the next 5 years, A Ltd. is expected to make investments of ₹ 10 crore each. These investments are also expected to earn 15% as a return on capital, and the cost of capital is expected to remain 10%.

After year 5, the company will continue to make investments and earnings will grow 5% a year, but the new investments will have a return on capital of only 10%, which is also the cost of capital.

All assets and investments are expected to have infinite lives. Thus, the assets in place and the investments made in the first five years will make 15% a year in perpetuity, with no growth.

Calculate the value of the company using an economic value-added approach. 7

7. (a) Hypothetical Ltd. is acquiring all the outstanding equity shares of Target Ltd. by exchanging one share of its own equity shares for each share of Target Ltd. Hypothetical Ltd. has a policy of keeping 50% of its capital structure in debts. The Capital structure of both these firms before the merger is as follows:

	Hypothetical Ltd.	Target Ltd.
	(Amount in Lakhs of rupees)	
Equity capital (of ₹ 100 each)	20	5
Retained earnings	25	25
14% Preference Shares	5	—
13% Debts	50	—

Hypothetical company needs your advice on the following questions:

(i) What will the capital structure of the merged firm be? Determine the percentage share of debt in the merged firm.

(ii) Has the merged firm's financial risk declined?

(iii) How much additional debt can the combined firm borrow to return to a capital structure 50% of which is debt? 7

(b) Anju consultancy Ltd. has been assigned the task of estimating a fair acquisition price for Atul Industries. Anju consultancy decides to use comparable company analysis to determine a fair acquisition price and collects the following significant information regarding three comparable companies:

	Company X	Company Y	Company Z
Price per share (₹)	240	150	300
Earnings per share	14.50	9.57	19.00

Anju consultancy has also collected the following information relating to recent acquisitions of similar companies like Atul Industries:

	Company A	Company B	Company C
Market Price	92.45	357.50	224.00
Deal price	117.00	425.00	290.00

The expected earnings per share of Atul industries is ₹ 15. You are required to **Assess** the expected Deal Price that should be offered for the acquisition. 7

8. (a) Fitness Solution is a family-owned fitness company, founded in 2020 by Roshan & Suman with traditional style equipment. The company commenced operations in February 2021 within a shopping mall so that members after working out, can conveniently shop, dine, pick up their children from enrichment classes or go to the cinema.

The owners pride themselves for providing a customized/tailored program by taking into account a person's medical history, present fitness level, fitness goals, fitness interests and offer many other small amenities that might be difficult to get in a similar Fitness Centre.

They believe –"Each individual is unique and requires a specialized program plan which should be customized and tailored to his/her needs."

They have a number of loyal members even though they offer the traditional style equipment.

Roshan & Suman take care of most of the routine operations, along with a small permanent staff and temporary staff. They appoint you as a management consultant and seek your advice on the Balanced Scorecard of the company.

(i) Identify at least three 'Critical Success Factors' for Fitness Solution.

(ii) Construct a 'Balance Scorecard'. (2 measures for each of the 4 perspectives are sufficient) 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:

(i) in proportion to the relative earnings per share of two Companies.

(ii) 0.5 share of Company X for one share of Company Y (0.5:1).

You are required:

To **advice** management on the Earnings Per Share (EPS) after merger under two alternatives; and

To **advice** management about the impact on EPS for the shareholders of two companies under both alternatives. 7