PAPER 20 - STRATEGIC PERFORMANCE MANAGEMENT & BUSINESS VALUATION

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Full Marks: 100 **Time allowed: 3 hours**

The figures in the margin on the right side indicate full marks. Working notes should form part of the answer.

Section - A

Answer Question No. 1 which is compulsory and any two from the rest of this section

1. Multiple choice questions: [1 mark for right choice and 1 mark for justification]

[5×2=10]

(i) The Average Cost of a firm is given by the function Average Cost = $x^3 + 12x^2 - 11x$, its marginal cost will be:

a. $4x^3 + 36x^2 - 22x$
b. $x^4 + 12x^3 - 11x^2$
c. $x^3 + 12x^2 - 11x$
d. None of the above.

(ii) As per Altman's model, if the value of z-score of a firm falls between 1.81 and 2.99, then the firm will be:

a. Non-failed firm
b. Failed firm
c. Mixture of failed and non-failed elements
d. None of the above.

(iii) The 5 S's concepts in Quality Management are:

a. SEIRI, SETOIN, SEISO, SEIKETSU, SHITSKUE
b. SEIRI, SEITON, SEISO, SEIKETSU, SHITSUKE
c. SEIRI, SETOIN, SEISO, SEIKESTU, SHITSUKE
d. SIERI, SETOIN, SEISO, SEIKETSU, SHITSUKE.

(iv) A successful TQM program incorporates all of the following except:

a. continuous improvement
b. employment involvement
c. benchmarking
d. centralized decision making authority.

(v) Performance will be a product of:

a. Efficiency and Utilization
b. Utilization and Productivity
c. Efficiency and Productivity
d. Efficiency, Utilization and Productivity

2. **(a)** Discuss the concept of Performance Management and also discuss about the components of Performance Management. **[3+7=10]**

(b) What is Total Quality Management (TQM)? What are the steps to be taken in the implementation of TQM? **[2+8=10]**

3. **(a)** The total cost function of a manufacturing firm is given by $C = 2x^3 - x^2 + 3x + 5$ and the Marginal Revenue = $8 - 3x$, X = output, determine the most profitable output of the firm. **[10]**

(b) Using Altman's Model (1968) of Corporate Distress Prediction, calculate the Z-score of S & Co. Ltd., whose five accounting ratios are given as below and comment on its financial position.

The five variables are:

(i) Working Capital to Total Assets = 25%

(ii) Retained Earnings to Total Assets = 30%

(iii) EBIT to Total Assets = 15%

(iv) Market Value of Equity Shares to Book Value of Total Debt =150%

(v) Sales to Total Assets = 2 times. **[10]**

4. **(a)** "To be effective, any Enterprise Risk Management (ERM) implementations should be integrated with strategy-setting". Do you agree? Give your views bringing out the basic elements of ERM and the reasons why ERM is implemented. **[5+5=10]**

(b) **(i)** State the objectives of MIS (Management Information System). **[6]**

(ii) Write a short note on OLAP Server. **[4]**

Section - B

Answer Question No. 5 which is compulsory and any two from the rest of this section.

5. **Multiple choice questions: [1 mark for right choice and 1 mark for justification] [5×2=10]**

(i) DCF analysis requires the revenue and expenses of:

a. Past

b. Future

c. Past & future

d. None of these.

(ii) The Current ratio of A Ltd. is 2:1, while quick ratio is 1.8:1. If the current liabilities are ₹ 40,000, value of stock is:

a. ₹ 5000

b. ₹ 8000

c. ₹ 6000
d. None of the above.

(iii) Kalinga Cements Ltd. earned free cash flow to Equity Shareholders during the financial year ending 2016 at ₹4.5 lakhs and its cost of equity is 13% with a projected earnings growth rate of 10%. The market value of debt is ₹50 lakhs. The value of firm as per constant Growth Valuation Model will be:
a. ₹ 45,00,000
b. ₹ 1,45,000
c. ₹ 1,50,000
d. ₹ 1,65,000.

(iv) 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 per share would be:
a. ₹ 10,000
b. ₹ 12,250
c. ₹ 13,500
d. ₹ 15,000.

(v) Dividend yield is the dividend per share as a percentage of the _________ of operating cash flows:
a. Book value
b. Market value
c. Both of the above
d. None of the above.

6. **(a)** Firm A acquires Firm B. As of date Firm B has accumulated losses of ₹ 1,000 Lakhs. Firm A is well managed company with a good profit record. The projected profits before taxes, of Firm A, for the next three years are given in the table:

Year	Amount in Lakhs (₹)
1	350
2	500
3	700

Assuming corporate tax rate of 35 per cent and discount rate of 12 per cent, Determine the present value of tax gains likely to accrue on account of merger to A. **[10]**

(b) 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.

Calculate value of stock. **[10]**

7. (a) The following information is provided in relation to the acquiring firm M Ltd. and the target firm P Ltd.

Particulars	M Ltd.	P Ltd.
Earnings after tax (₹)	200 lakhs	40 lakhs
Number of shares outstanding	20 lakhs	10 lakhs
P /E Ratio	10	5

Required:

(i) What is the swap ratio in terms of current market price?

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

(iii) What is the expected market price per share of M Ltd. after acquisition assuming that P / E ratio of M Ltd. remains unchanged?

(iv) Determine the market value of the merged firm. **[8]**

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

Particulars	RAJJAN	REKHA
Revenues	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.

Estimate:

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

(ii) The value of the combined firm with synergy effect. **[12]**

8. (a) You are given following information about Sandeep Ltd.:

(i) Beta for the year 2022-23: 1.05

(ii) Risk free rate 12%

(iii) Long Range Market Rate (based on BSE Sensex): 15.14%

(iv) Extracts from the liabilities side of balance sheet as at 31st March, 2023:

	₹
Equity	29,160
Reserve & Surplus	43,740
Shareholder's Fund	72,900
Loan Funds	8,100
Total Funds (Long term)	81,000

(v) Profit after tax ₹ 20,394 .16 lakhs

(vi) Interest deducted from profit ₹487.00 lakhs

(vii) Effective tax rate (i.e. Provision for Tax/PBT x 100) 24.45%

Calculate Economic Value Added of Sandeep Ltd. as on 31st March 2023. **[10]**

(b) Given below is the Balance Sheet (Extract) of S Ltd. as on 31.03.2023

Liabilities	₹ (in lakhs)	Assets	₹ (in lakhs)
Share capital (Share of ₹10)	100	Land and building	40
Reserve and Surplus	40	Plant and machinery	80
Creditors	30	Investments	10
		Stock	20
		Debtors	15
		Cash at bank	5
	170		170

You are required to work out the value of the Company's shares on the basis of Net Asset method and Profit-earning capacity (capitalization) method and arrive at the fair price of the shares, by considering the following information:

1. Profit for the current year ₹64 lakhs includes ₹4 lakhs extraordinary income and ₹1 lakh income from investments of surplus funds; such surplus funds are unlikely to recur.
2. In subsequent years, additional advertisement expenses of ₹5 lakhs are expected to be incurred each year.
3. Market value of Land and Building & Plant and Machinery has been ascertained at ₹96 lakhs and ₹100 lakhs respectively. This will entail additional depreciation of ₹6 lakhs each year.
4. Effective Income-tax rate is 30%.
5. The capitalization rate applicable to similar businesses is 15%. **[10]**