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

(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]**

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

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. **[1+4+5]**

(b)(i) State the objectives of MIS (Management Information System). **[7]**

(ii) Write a short note on OLAP Server. **[3]**

Section - B

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

5. Multiple choice questions: **[5×2=10]**

[1 mark for right choice and 1 mark for justification]

(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 (₹)
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) Kolkata Ltd. and Bombay Ltd. have agreed that Kolkata Ltd. will take over the business of Mumbai Ltd. with effect from 31st December, 2013. It is agreed that:

(i) 10,00,000 shareholders of Mumbai Ltd. will receive shares of Kolkata Ltd.. The swap ratio is determined on the basis of 26 week average market prices of shares of both the companies. Average prices have been worked out at ₹50 and ₹25 for the shares of Kolkata Ltd. and Mumbai Ltd. respectively.

(ii) In addition to (i) above, the shareholders of Mumbai Ltd. will be paid in cash based on the projected synergy that will arise on the absorption of the business of Mumbai Ltd. by Kolkata Ltd. 50% of the projected benefits will be paid to the shareholders of Mumbai Ltd.

The following projections have been agreed upon by the management of both the companies:

Year	2014	2015	2016	2017	2018
Benefit ₹ (in lakhs)	50	75	90	100	105

The benefit is estimated to grow at the rate of 2% from 2018 onwards. It has been further agreed that a discount rate of 20% should be used to calculate the cash that the holders of each share of Mumbai Ltd. will receive.

- Calculate the cash that holder of each share of Mumbai Ltd. will receive
- Calculate the total purchase consideration.

(Discounting Rate 20%: 1 year-0.833, 2 year-0.694, 3 year-0.579, 4 year-0.482, 6 year-0.335). **[10]**

7.(a) Current equilibrium price per share (MPS) and expected earning per share (EPS) of five companies in the same industry are given below. The cost of equity for the industry can be taken as 20%. Identify the company having maximum potential for growth.

Company	MPS	EPS
A Ltd.	75.00	12.00
B Ltd.	63.00	9.45
C Ltd.	65.00	7.80
D Ltd.	70.00	11.90

E Ltd. 80.00 8.80 **[10]**

(b) You are given following information about Sandeep Ltd.

(i) Beta for the year 2015-161.05

(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, 2016

	₹
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 values Added of Sandeep Ltd. as on 31st March 2016. **[10]**

8.(a) S K Lab a pharmaceutical company in Western India was expected to have revenues of ₹ lakhs in 2016 and report net income of ₹9 lakhs in that year. The firm had a book value of assets of ₹110 lakhs and a book value of equity of ₹58 lakhs at the end of 2015. Its market capitalization was ₹85 lakhs. The firm was expected to maintain sales in its niche product, a multivitamin tablet and grow at 5% a year in the long term, primarily by expanding into the generic drug market. The beta of S K Lab traded in Mumbai Stock Exchange was 1.25. The return on 10 year GOI bond in India in 2015 was 7% and the risk premium for stocks over bond is assumed to be 3.5%. Do you consider the market price as the fair value of the shares of S K Lab? **[10]**

(b) Given below is the Balance Sheet of S Ltd. as on 31.03.2017

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]**