Paper 20 - Strategic Performance Management and Business Valuation

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

Section – A (50 marks)

Strategic Performance Management

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

1. **Choose the most appropriate answer from the four alternatives given:** **[2x5=10]**

(i) Who has prompted the phrases, "Zero Defects"?
(A) Walter A. Shewhart;
(B) Philip Crosby;
(C) Peter Drucker;
(D) F. W. Taylor.

(ii) ROA = (Net Income/Revenue) × (__________/Assets) = Profit Margin × Asset Turnover
(A) Liabilities;
(B) Revenue;
(C) Equity;
(D) None of the above.

(iii) The revenue function of a firm given by R = (2200 - 3x) $\frac{x}{2}$, the firm's marginal revenue function will be____________.
(A) 2200 – 3x
(B) 1100 – 3x
(C) 1100 – 2x
(D) 2200 – 2x

(iv) The risk which is primarily influenced by the level of financial gearing, interest cover, operating leverage, and cash flow adequacy, is called:
(A) Financial risk;
(B) Business risk;
(C) External risk;
(D) Exchange risk.

(v) 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.

2. **(a) (i)** Discuss the components of Supply Chain Management. **[5]**

(ii) List the advantages of 'Customer Relationship Management'.[Mention any ten] **[5]**

(b) "An iron ore mining company excavates iron-ore, crushes over-sized lumps and washes a part of it for higher grade. Thus, there are three grades viz. sized ore (washed & unwashed) and fines, each serving a distinct group of customers. Company's machineries comprise mobile equipments (drills, excavators, loaders, dumpers and dozers), stationery crusher, washing plant and conveyor system connecting crusher, washing plant and stockyard." List the Key Performance Indicator of the Managing Director of this company. **[10]**

3.(a) (i) A manufacturer can sell "X" items ($X \geq 0$) at a price of $(330 - X)$ each; the cost of producing "X" items is ₹ $(X^2 + 10X + 12)$. How many items should he sell to make the maximum profit? Also determine the maximum profit. **[8]**

(ii) The Cost Function of a particular firm is $C = (1/3)x^3 - 5x^2 + 75x + 10$.Find at which level the Marginal Cost attains its minimum. **[4]**

(b) Discuss the following aspects regarding Corporate Failure: **[3+2+3=8]**

(i) Technical causes;
(ii) Over-expansion and diversification;
(iii) Working Capital Problem.

4. (a) (i) What is Risk Mapping? Does it benefit the organisation? – Discuss. **[5+5=10]**

(b) Write a note on each of the following: **[4+3+3=10]**
(i) Value at Risk
(ii) On-Line Analytical Processing
(iii) Tactical-level information systems

Section - B (50 marks)

Business Valuation

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

5. Choose the most appropriate answer from the four alternatives given: [2x5=10]

(i) Estimated fair value of an asset is based on the _______________ value of operating cash flows.
(A) current
(B) discounted
(C) future
(D) none of these

(ii) Economic Value Added for all years = Net Operating Profit after Taxes − WACC × _______ ______
(A) Capital Invested
(B) Gross Capital Expenditure
(C) Net sales growth
(D) None of the above

(iii) X Ltd. has ₹300 crores worth of common equity on its balance sheet comprising of 60 lakhs shares. The company's Market Value Added (MVA) is ₹42 crores. What is company's stock price?
(A) ₹570
(B) ₹500
(C) ₹42
(D) None of the above

(iv) A intends to acquire B (by merger) based on market price of the shares.
The following information is available of the two companies.

	A	B
No. of Equity shares	5,00,000	3,00,000
Earnings after tax (₹)	25,00,000	9,00,000
Market value per share	₹30	₹25
New EPS of A after merger?		

(A) ₹3.40
(B) ₹5.00
(C) ₹3.00
(D) ₹4.53

(v) If a company has a P/E ratio of 20 and a ROE (Return on Equity) of 0.20%, then the Market to Book Value Ratio is
(A) 4 times
(B) 4%
(C) cannot be calculated from the given information
(D) None of the above

6. (a) Consider a bond selling at its par value of ₹1,000, with 6 years to maturity and a 7% coupon rate (with annual interest payment), what is bond's duration? If the YTM of this bond increases to 10%, how it affects the bond's duration? and why? Why should the duration of a coupon carrying bond always be less than the time to its maturity? **[10]**

(b) Alpha India Ltd., is trying to buy Beta India Ltd., Beta India Ltd., is a small bio-technology firm that develops products that are licensed to major pharmaceutical firms. The development costs are expected to generate negative cash flows of ₹ 10 lakhs during the first year of the forecast period. Licensing fee is expected to generate positive cash flows of ₹ 5 lakhs, ₹ 10 lakhs, ₹ 15 lakhs and ₹ 20 lakhs during 2-5 years respectively. Due to the emergence of competitive products, cash flows are expected to grow annually at a modest 5% after the fifth year. The discount rate for the first five years is estimated to be 15% and then drop to 8% beyond the fifth year. Calculate the value of the firm. **[10]**
Given: The discount rate @ 15% will be:

Year	1	2	3	4	5
Discount Rate	0.869	0.756	0.6575	0.572	0.497

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

Particulars	P Ltd.	Q Ltd.
Earnings after tax (₹)	300 lakhs	60 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 P Ltd. after acquisition?
(iii) What is the expected market price per share of P Ltd. after acquisition assuming that P / E ratio of P Ltd. remains unchanged?
(iv) Determine the market value of the merged firm. **[8]**

(b) Bibi Ltd. is planning to acquire Titi Ltd. and the following information is provided in relation to the acquisition about both the companies:

Particulars	Bibi Ltd.	Titi Ltd.
Profit after tax (₹ in lakhs)	250	50
Number of shares outstanding (in lakhs)	20	10
P/E Ratio	16	12

Required:

(i) What will be the swap ratio it is to be determined on the basis of market prices?

(ii) Assuming that the swap ratio is on the basis of market price, what will be the market value of Bibi Ltd. after acquisition if the merged entity expected to have a P/E ratio of 18? **[12]**

8. (a) The following information is available of a concern; calculate E.V.A.:

Debt capital 12%	₹4,000 crores
Equity capital	₹1,000 crores
Reserve and Surplus	₹15,000 crores
Capital employed	₹20,000 crores
Risk-free rate	8%
Beta factor	1.05
Market rate of return	18%
Equity (market) risk premium	10%
Operating profit after tax	₹4,200 crores
Tax rate	30%

[10]

(b) Veer Ltd. wants to acquire Shakti Ltd. and has offered a swap ratio of 1 : 2 (0.5 shares for every one share of Shakti Ltd.).

Following information is provided:

Particulars	Veer Ltd.	Shakti Ltd.
Profit after tax (₹)	36,00,000	7,20,000
Equity shares outstanding (Nos.)	12,00,000	3,60,000
EPS (₹)	3	2
P/E Ratio	10 times	7 times
Market price per share (₹)	30	14

Required:

(i) The number of equity shares to be issued by Veer Ltd., for acquisition of Shakti Ltd.

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

(iii) Determine the equivalent earnings per share of Shakti Ltd.

(iv) What is the expected market price per share of Veer Ltd., after the acquisition, assuming its P/E multiple remains unchanged?

(v) Determine the market value of the merged firm. **[2x5=10]**