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) According to model developed by Altman in 1968, which of the following is not the selected ratio for corporate distress prediction?
(A) Working Capital to Total Assets
(B) Retained Earnings to Total Assets
(C) Sales to Total Assets
(D) Book value of Equity/ total liabilities.

(ii) 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) Economic Risk
(D) Default Risk.

(iii) The prices which are fixed and enforced by the Government and regulatory in nature, is called:
(A) Dual Pricing
(B) Administered Pricing
(C) Shadow Pricing
(D) Multiple Product Pricing.

(iv) The Average Cost of a firm is given by the function Average Cost = $x^3 + 12x^2 - 11x$, the marginal cost will be:
(A) $4x^3 + 36x^2 - 22x$
(B) $x^4 + 12x^3 - 11x^2$
(C) $x^2 + 24x - 11$
(D) None of the above.

(v) Which of the following is not a part of Customer Relationship Management (CRM) application?
(A) Analytical CRM
(B) Operative CRM
(C) Quantitative CRM
(D) Collaborative CRM.

2.(a) What is Supply Chain Management? Write about the different types of Customer Relationship Management. **[4+6=10]**

(b) What is Enterprise Resource Planning (ERP)? "Benefits from ERP are of two kinds, tangible and intangible." — State those benefits. **[2+8=10]**

3.(a) If Cost Function is $C = \frac{3}{5}x + \frac{15}{4}$, find:

(i) Cost when output is 5 units
(ii) Average Cost of 10 units
(iii) Marginal cost. **[3+3+2=8]**

(b) From the information provided relating to a company, calculate Altman's Z-score and comment on the financial condition of the company:

Equity Share Capital (of ₹ 10 each)	2,00,000
12% Preference Share Capital (of ₹ 100 each)	1,00,000
Fixed Assets	3,00,000
Current Assets	2,00,000
Fictitious Assets	25,000
Current Liabilities	1,00,000
10% Debentures	2,00,000
General Reserve	75,000
Profit & Loss A/c (Cr.)	50,000
Sales	10,00,000
Earnings before Tax	1,30,000
Interest on Debentures	20,000
Market Value of each Equity Share	15
Market Value of each Preference Share	150

[12]

4.(a) Write short note on:

(i) Economic risk
(ii) Financial risk
(iii) Risk pooling. **[3+3+4=10]**

(b) What are the accounting techniques of financial performance analysis? State the significance of financial performance analysis. **[6+4=10]**

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) Which is not a, human – capital related intangible asset?

(A) Trained workforce
(B) Employment agreements
(C) Union contracts
(D) Design patent

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

(A) 14%
(B) 16%
(C) 18%

(D) 20%.

(iii) A firm's current assets and current liabilities are ₹ 1600 and ₹ 1000 respectively. How much can it borrow on a short-term basis without reducing the current ratio below 1.25?
(A) ₹ 1,000
(B) ₹ 1,200
(C) ₹ 1,400
(D) ₹ 1,600

(iv) Identify which of the following is not a financial liability for a company:
(A) X Ltd. has 1 lac ₹10 ordinary shares issued
(B) X Ltd. has 1 lac ₹10 redeemable preference shares issued
(C) None of the above
(D) Both.

(v) If value of A Ltd. is 50, B Ltd. is 20 and on merger their combined value is 90 and A Ltd. receives premium on merger 12, the synergy for merger is (all amounts are in ₹ Lakhs):
(A) 8
(B) 20
(C) 32
(D) 38

6.(a) 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]**

(b) Explain Economic Value Added (EVA). **[5]**

(c)

Equity Share Capital	₹ 5,00,000
13% Preference Share Capital	₹ 2,00,000
Reserves and Surplus	₹ 6,00,000
Non trade investments (Face value 1,00,000) Rate of Interest	10%
20% Debentures	₹ 3,00,000
Profits before tax	₹ 2,00,000
Tax Rate	40%
WACC	13%

Calculate EVA. **[5]**

7.(a) 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.

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

[10]

(b) Tridev Ltd. is in the business of making sports equipment. The Company operates from Thailand. To globalise its operations Tridev has identified Try Toys Ltd., an Indian Company, as a potential takeover candidate. After due diligence of Try Toys Ltd, the following information is available:

(A) Cash Flow Forecasts (₹ in Crores)

Year	10	9	8	7	6	5	4	3	2	1
Try Toys Ltd.	24	21	15	16	15	12	10	8	6	3
Tridev Ltd.	108	70	55	60	52	44	32	30	20	16

(B) The Net Worth of Try Toys Ltd (₹ in Lakhs) after considering certain adjustments suggested by the due diligence team reds as under —

Tangible	750	
Inventories	145	
Receivables	75	970
Less- Creditors	165	
Bank Loans	250	(415)
Represented by Equity Shares @ ₹ 1000 each		555

Talks for the takeover have crystallized on the following –

(i) Tridev Ltd. will not be able to use Machinery worth ₹75 Lakhs which will be disposed of by them subsequent to take over. The expected realization will be ₹50 Lakhs.

(ii) The inventories and receivables are agreed for takeover at values of ₹100 and ₹50 Lakhs respectively, which is the price they will realize on disposal.

(iii) The liabilities of Try Toys Ltd will be discharged in full on take over along with an employee settlement of ₹90 Lakhs for the employees who are not interested in continuing under the new management.

(iv) Tridev Ltd will invest a sum of ₹150 Lakhs for upgrading the Plant of Try Toys Ltd on takeover. A further sum of ₹50 Lakhs will also be incurred in the second year to revamp the machine shop floor of Try Toys Ltd.

(v) The anticipated cash flow (in ₹ Crore) post takeover are as follows -

Year	1	2	3	4	5	6	7	8	9	10
Cash Flows	18	24	36	44	60	80	96	100	140	200

You are required to advise the management the maximum price which they can pay per share of Try Toys Ltd., if a discount factor of 15% is considered appropriate. **[10]**

8.(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) Acquiring company is considering the acquisition of Target Company in a stock- for-stock transaction in which target Company would receive ₹ 90 for each share of its common stock. The Acquiring company does not expect any change in its price/ earnings ratio multiple after the merger and chooses to value the target company conservatively by assuming no earnings growth due to synergy.
Calculate:

(i) The purchase price premium
(ii) The exchange ratio
(iii) The number of new shares issued by the acquiring company.
(iv) Post-merger EPS of the combined firms
(v) Pre-merger EPS of the Acquiring company
(vi) Pre-merger P/E ratio
(vii) Post-merger share price
(viii) Post-merger equity ownership distribution.

The following additional information is available.

Particulars	Acquiring	Target
Earnings	₹ 2,50,000	₹ 72,500
Number of shares	1,10,000	20,000
Market Price per Share	₹ 50	₹ 60

Also, Comment on your results. **[12]**