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.

SECTION – A (Compulsory)

1. (a) Choose the correct option: **[15 x 2 = 30]**

(i) If A Bottom-up approach used in strategy formulation is known as______.
- (a) Strategy Implantation
- (b) Formulation of operational plan
- (c) Formulation of tactical plan
- (d) Reverse mapping

(ii) Small/Mid-sized Six Sigma projects are executed by professionals titled as:
- (a) Champion
- (b) Green Belt
- (c) Black Belt
- (d) Site Champion

(iii) Monopolistic competition and Oligopoly are the examples of______.
- (a) Perfect
- (b) Imperfect
- (c) No market structure
- (d) All of the above

(iv) Which of the following are not the element/ 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

(v) What does Warren Buffet's phrase 'Price is what you pay and value is what you get' suggest?
- (a) Price and value are always the same.
- (b) Price is more important than value.
- (c) Price is less important than value.
- (d) Price and value can be different.

(vi) A project assumed monetary gain or loss by discounting entire cash inflows and outflows by utilising the necessary rate of return is listed as

(a) Net recorded cash value
(b) Net discounted value
(c) Net future value
(d) Net present value

(vii) Which of the following is true about the callable bond?

(a) Callable bonds always trade at a discount to non-callable bonds
(b) Callable bonds expose issuers to the risk of reduced re-investment return
(c) Callable bonds are actually variable tenor bonds
(d) Callable bonds are not as liquid as non-callable bonds

(viii) 8% bond of Face Value ₹100 is selling for ₹96. What would be its Current Yield?

(a) 8%
(b) 12%
(c) 8.33%
(d) None of the above

(ix) If X ltd has ₹100 crores worth of common equity on its balance sheet comprising of 50 lakhs shares. The company's market value Added (MVA) is ₹24 crores. What is company's stock price?

(a) 230
(b) 238
(c) 248
(d) 264

(x) If purchase consideration is more than net assets of the transferor company, then difference will be shown as:

(a) Goodwill account
(b) Capital reserve account
(c) General reserve account
(d) None of the above

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

An investor has been watching two similar companies, Lotus Inc., and ASA Inc. that have recently been improving their return on equity compared to the rest of companies in the industry. This could be a good thing if the two companies are making better use of assets or improving profit margins. But if the companies have increased the debt proportion in the capital structure, this would also be reflected in the ROE but would actually mean an increase in the financial risk perception of the companies.

In order to decide which company has a better opportunity, the investor decides to use DuPont analysis to determine the efforts of each company in improving its ROE and whether that improvement is sustainable. The following information are provided:

					figures in ₹ '000
Particulars		Lotus Inc.		ASA Inc.	
		Year 1	Year 2	Year 1	Year 2
i.	Net Income	1,000	1,200	2,100	2,100
ii.	Revenue from operation	10,000	10,000	17,500	17,500
iii.	Average Assets	5,000	4,800	8,750	8,750
iv.	Average Equity	2,000	2,000	5,000	3,500

Based on the above case, you are required to answer the questions no. from (i) to (v):

(i) The profit margin of Lotus Inc. in the Year 2 will be:
- (a) 8.33
- (b) 0.1
- (c) 0.12
- (d) None of the above.

(ii) What will be the asset turnover ratio of ASA Inc. in Year 1?
- (a) 2
- (b) 2.08
- (c) 0.5
- (d) None of the above.

(iii) Which company has better ROE in Year 1?
- (a) Lotus Inc.
- (b) ASA Inc.
- (c) Both companies have same ROE
- (d) None of the above.

(iv) The ROE of Lotus Inc. in the Year 1 will be:
- (a) 42%
- (b) 50%
- (c) 60%
- (d) None of the above.

(v) The equity multiplier of ASA Inc. in Year 1 and Year 2 will be respectively:
- (a) 2.5 and 2.4
- (b) 2.5 and 1.75
- (c) 1.75 and 2.5
- (d) None of the above.

SECTION – B

(Answer any five questions out of seven questions given. Each question carries 14 Marks.)

[5x14=70]

2. (a) Explain Customer Relationship Management (CRM) and describe its types. **[7]**

(b) Explain the steps in developing a Balanced Score Card. Describe the information to be required for performance measurement under Balanced Score Card. **[7]**

3. (a) A manufacturer can sell 'Q' items ($Q > 0$) at a price of $(330 – Q)$ each; the cost of producing Q items is $TC(Q) = Q^2 + 10Q + 12$. Calculate the maximum profit and the number of items he should sell to achieve this maximum profit. **[7]**

(b) Explain briefly the Risk Enabled Performance Management (REPM). Summarize the focus areas of the traditional ERM and classify the areas of practices on which the transformation to REPM is based. **[7]**

4. (a) Describe (with formula) the Five Component DuPont Analysis. **[7]**

(b) Mr. Sharma, a Cost Accountant by profession, is an independent financial analyst. He extracted the respective ratios (Note 1) and calculated the overall Altman Z-score for Y-Connection, an Indian firm engaged in the manufacture of electronics products during the period 2020 to 2024, which is given as under:

Years	2020	2021	2022	2023	2024
X1	0.020	0.010	-0.010	0.020	0.040
X2	0.174	0.110	0.110	0.110	0.070
X3	0.253	0.080	0.180	0.200	0.130
X4	0.565	0.469	0.663	0.922	0.724
X5	0.823	0.900	1.060	1.200	1.540
Score	1.840	1.580	2.000	2.450	2.490

Note 1:
X_1 = Working Capital to Total Assets
X_2 = Retained Earnings to Total Assets
X_3 = EBIT to Total Assets
X_4 = Market Value of Equity to Total Debts
X_5 = Sales to Total Assets

You, as a new recruit, have been asked by Mr. Sharma to interpret the above results, Summarize your response and comment on the financial position of the firm. **[7]**

5. (a) The free cash flow of Suvision Ltd is projected to grow at a compound annual average rate of 35% for the next 5 years. Growth is then expected to slow down to a normal 5% annual growth rate. The current year's cash flow of Suvision Ltd is ₹ 4 lakhs. Suvision Ltd.'s cost of capital during the high growth period is 18% and 12% beyond the fifth year, as growth stabilizes. Calculate the value of the Suvision Ltd. **[7]**

(b) XENON Ltd. reported a profit of ₹100.32 lakhs after 34% tax for the financial year 2024-25. An analysis of the accounts reveals that the income included extraordinary items of 14 lakhs and an extraordinary loss of ₹ 5 lakhs. The existing operations, except for the extraordinary items, are expected to continue in future. Further, a new product is launched and the expectations are as under:

Particulars	₹ in lakhs
Sales	70
Material Costs	20
Labour Costs	16
Fixed Costs	10

The company has 50,00,000 Equity Shares of 10 each and 80,000 9% Preference Shares of 100 each with P/E Ratio being 6 times. Cost of capital is 12% (post tax).

Calculate:

(i) The value of the business.

(ii) The market price per equity share. **[7]**

6. (a) Bloomsbury India, the current publisher of the book, Handbook on Valuation of Securities and Financial Assets by Vikash Goel, is willing to sell the copyrights of this book to another publisher who is keen to buy the copyrights. The following assumptions may be relevant.

The current price of the book is INR 3,000 and the publisher currently sells 6,500 copies of the book annually. The cost of production, distribution and author royalties amount to 70 percent of Sales. The book is becoming popular and the publisher estimates that the sales of the book may increase by 5 percent every year for the next 5 years. This is including the newer editions of the same book.

However, after 5 years, given the introduction of other books on the same subject, dilution of exclusivity, violation of copyrights and plagiarism, there may not be any increase in sales but the sales may be stable at the same level as at year 5.

Assuming a discount rate of 10 percent. Evaluate the value of the copyrights. **[7]**

(b) The Income Statement and Balance Sheet of Radeon Company Ltd. is given below:

INCOME STATEMENT

Particulars	INR in Lakhs	INR in Lakhs
Sales	6,250	
Total Income		6,250
Less:		
Manufacturing cost	1,500	
Administration cost	800	
Selling and distribution cost	350	
Depreciation	200	
		2,850
EBIT		3,400

Less: Interest		150
EBT		3,250
Less: Tax (30%)		975
PAT		2,275
EPS		45.5
P/E ratio		3

BALANCE SHEET

LIABILITIES	INR in Lakhs	ASSETS	INR in Lakhs
Equity Capital (₹10 share)	500	Buildings	900
Reserve Surplus	350	Machinery	500
Term loan	650	Stock	150
Payables	300	Debtors	250
Provisions	130	Bank	130
TOTAL	1,930	TOTAL	1,930

The cost of equity and cost of debt is 14% and 8% respectively. The company pays 30% corporate tax. Calculate the EVA. Also, calculate Market Value Added (MVA) on the basis of Market value of equity capital. **[7]**

7. (a) MNO Company is considering the acquisition of PQR Company. The Target Company would receive INR 70 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 Info is Available

	MNO	PQR
Earnings	3,70,000	92,000
Number of Shares	90,000	24,000
Market Price/share	43	57
Offer Price		70

[7]

(b) X Ltd. is considering a takeover of Y Ltd. The particulars of the two companies are given below:

Particulars	X Ltd.	Y Ltd.
Earnings after Tax (EAT) (in ₹)	20,00,000	10,00,000
Equity Shares (Nos.)	10,00,000	10,00,000
EPS	2	1
P/E Ratio (times)	10	5

Required:

(i) Calculate the market value of each company before merger.

(ii) Assuming that the management of X Ltd. estimates that the shareholders of Y Ltd. will accept an offer of one share of X Ltd. for four shares of Y Ltd. If there are no synergic effects, Calculate the market values of the Post-merger X Ltd. Suggest the shareholders of X Ltd. better off than they were before the merger?

(iii) Due to synergic effects, the management of X Ltd. estimates that the earnings will increase by 20%. Calculate the new Post-merger EPS and the Price per Share. Justify, will the shareholders be better-off or worse-off? **[7]**

8. **(a)** Last year, Mr. Sandeep was engaged as a consultant to the Expert Electricals and prepared some analysis of its cost-volume-profit relationships. Among his findings was that the profit volume ratio was 40% at the firm's planned selling price of ₹ 50. The firm expected to sell 8,000 units at the price of ₹ 50, which would result in an income of ₹ 96,000. Sandeep stressed the point in his report to the chief executive of the Company that profits would change at the rate of ₹ 0.40 per rupee change in sales.

The chief executive called Sandeep to tell him that the result did not come out as were told to him. The firm earned profits of ₹ 1,26,400 on sales volume of ₹ 4,53,600. Although variable costs per unit were incurred as expected, the firm had higher fixed costs than expected because of ₹ 4,000 advertising campaign during the year. The campaign was coupled with an increase in selling price and the chief executive was very pleased with the results. However, Sandeep is asked to explain why profits did not increase by 40% of the added sales volume of ₹ 53,600 but rather somewhat more.

You are required to do the following:

(i) Reconstruct the income statement for the year based on the actual results.

(ii) Identify (I) the number of units sold and (II) the selling price per unit.

Explain to the chief executive why the results were at variance with the planned results. **[7]**

(b) XYZ Ltd. is considering merger with ABC Ltd. XYZ Ltd.'s shares are currently traded at ₹ 25. It has 2,00,000 shares outstanding and its profits after taxes (PAT) amount to ₹ 4,00,000. ABC Ltd. has 1,00,000 shares outstanding. Its current market price is ₹ 12.50 and its PAT are ₹ 1,00,000. The merger will be effected by means of a stock swap (exchange). ABC Ltd. has agreed to a plan under which XYZ Ltd. will offer the current market value of ABC Ltd.'s shares:

(i) Calculate the pre-merger earnings per share (EPS) and P/E ratios of both the companies.

(ii) If ABC Ltd.'s P/E ratio is 8, calculate its current market price. Evaluate the exchange ratio and calculate XYZ Ltd.'s post-merger EPS.

(iii) Assess the exchange ratio, must be for XYZ Ltd. so that pre and post-merger EPS to be the same.

[7]