

**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 components of supply chain management are:
(A) Plan, source, make, deliver & return
(B) Plan, system, make, deliver & return
(C) Plan, source, supply & return
(D) Plan, source, make, deliver & warranty
- (ii) 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.
- (iii) Which of the following is not a type of an OLAP system?
(A) ROLAP
(B) MOLAP
(C) RTOLAP
(D) ZTOLAP
- (iv) J Ltd. is operating in a perfectly competitive market. The price elasticity of demand and supply of the product estimated to be 3 and 2 respectively. The equilibrium price of the product is ₹100. If the government imposes a specific tax of ₹10 per unit, what will be the new equilibrium price?
(A) ₹ 110
(B) ₹ 44
(C) ₹ 104
(D) ₹ 106
- (v) Performance is a product of:
(A) Efficiency and Utilization
(B) Utilization and Productivity
(C) Efficiency and Productivity
(D) Efficiency, Utilization and Productivity.

2.(a) What is Performance Management? "Performance management and performance appraisal are sometimes used synonymously but they are different". Do you agree this statement? Support your answer by highlighting bases of difference, if any, between them. **[2+8=10]**

- (b) State how six sigma methodology works through the use of its two sub methodologies: DMAIC and DMADV. "Benchmarking is a powerful management tool because it overcomes paradigm blindness" — Justify the statement. **[5+5=10]**
- 3.(a) The Demand function is $x = 100 + 4p + 10p^2$, where x is demand for the commodity at price 'p'. Compute marginal quantity of demand, average quantity of demand and hence elasticity of demand, at $p = 4$. **[8]**
- (b)(i) Write about the causes of sickness of a project.
(ii) Using Altman's Multiple Discriminant Function, calculate Z-score of S & Co. Ltd., where the five accounting ratios are as follows and comment about its financial position:
Working Capital to Total Assets = 0.350
Retained Earnings to Total Assets = 50%
EBIT to Total Assets = 19%
Book Value of Equity to Book Value of Total Debt = 1.65
Sales to Total Assets = 2 times. **[5+7=12]**
- 4.(a) What are Key Risk Indicators in the process of Risk Mapping? State the benefits of Risk Mapping. **[5+5=10]**
(b) Describe 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 one of the following statements is not true about efficient market?
(A) Share prices behave randomly and do not show any systematic pattern in the behavior
(B) Price of one share is independent of the price of other shares in the market
(C) Share prices fully reflect all available information
(D) None can earn abnormally high profits on a constant basis.
- (ii) Assume that in a Stock Market, the CAPM is working. A company has presently beta of 0.84 and its going to finance its new project through debt. This would increase its Debt/Equity Ratio to 1.56 from the existing 1.26. Due to increased Debt/Equity Ratio, the Company's beta would:
(A) Increase
(B) Decrease
(C) Remain unchanged
(D) Nothing can be concluded.
- (iii) 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

- (iv) Rico Ltd. has PAT of ₹ 40.20 lakhs with extra ordinary income of ₹ 7.00 lakhs. If the cost of capital is 20% and the applicable tax rate is 40% the value of Rico Ltd. will be:
 (A) ₹ 250 lakhs
 (B) ₹ 180 lakhs
 (C) ₹ 150 lakhs
 (D) Insufficient information.
- (v) Identify which of the following is not a financial liability?
 (A) X Ltd. has 1 lakh ₹ 10 ordinary shares issued
 (B) X Ltd. has 1 lakh 8% ₹ 10 redeemable preference shares issued
 (C) X Ltd. has ₹ 2,00,000 of 6% bonds issued
 (D) Both (A) and (B).

6.(a) The following informations are furnished in respect of a certain firm:

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 and Working Capital are all expected to grow at 6% per year. The beta for stock is 0.90. Treasury bond rate is 7.50%. A premium of 5.5% is used for the market.
 Calculate the value of stock. **[8]**

(b) Find out the average capital employed of ND Ltd. From its Balance Sheet as at 31st March, 2019:

| Equity and Liability | ₹ in Lakhs | Assets | ₹ in Lakhs |
|---|------------|------------------------------|------------|
| (1) Shareholders Fund: | | (1) Non-Current Assets: | |
| (a) Share Capital | | (a) Fixed Assets | |
| (i) Equity Share Capital of ₹ 10 each | 50.00 | (i) Tangible Assets: | |
| (ii) 9% Preference Shares fully paid up | 10.00 | – Land and Building | 25.00 |
| (b) Reserve & Surplus | | – Plant and Machinery | 80.25 |
| (i) General Reserve | 12.00 | – Furniture and Fixtures | 5.50 |
| (ii) Profit & Loss Account | 20.00 | – Vehicles | 5.00 |
| (2) Non-Current Liabilities: | | (b) Non-Current Investments | 10.00 |
| Long Term Borrowings | | (c) Other Non-Current Assets | 0.50 |
| (i) 16% Debentures | 5.00 | – Preliminary Expenses | |
| (ii) 16% Term Loan | 18.00 | (2) Current Assets: | |
| (iii) Cash Credit | 13.30 | (a) Inventories | 6.75 |
| (3) Current Liabilities: | | (b) Trade Receivables | 4.90 |

MTP_Final_Syllabus 2016_Jun 2020_Set 1

| | | | |
|---------------------------------------|--------|-------------------------------|--------|
| (a) Trade Payables - Sundry Creditors | 2.70 | — Sundry Debtors | |
| (b) Short Term Provision | | (c) Cash and Cash Equivalents | 10.40 |
| – Provision for Taxation (Net) | 6.40 | | |
| – Proposed Dividend | | | |
| Equity Shares | 10.00 | | |
| Preference Shares | 0.90 | | |
| Total | 148.30 | Total | 148.30 |

Non-trade investments were 20% of the total investments.

Balances as on 1.4.2018 to the following accounts were:

Profit and Loss account ₹8.70 lakhs, General reserve ₹6.50 lakhs.

[12]

- 7.(a)** The bidding company B Ltd. is contemplating a merger with the target company, T Ltd. so as to form the merged B Ltd. under two distinct situations X and Y. You are provided with the following information about the proposed merger:

| Company | B Ltd. | T Ltd. |
|---------------------------------|--------|--------|
| EAT (₹ lakhs) | 40 | 12.5 |
| No. of Equity Shares (in lakhs) | 5 | 2 |
| P/E ratio | 12.5 | 20 |

Situation X: There is no synergy in earnings, but P/E of merged B Ltd. will stand at 15. Merger is based on market value of shares.

Situation Y: Post merger P/E stands at that of stand-alone B Ltd., but earnings of the merged entity rises by 20% over the aggregate earnings of B Ltd. and T Ltd. Swap ratio is 1.3 for every share of T Ltd.

Find for both the situations X and Y:

- (i) Post merger EPS.
- (ii) Post merger market value per share.
- (iii) Synergy due to merger.
- (iv) Gain/loss for merger to shareholders of B Ltd. and T Ltd. (A) in value of share holdings and (B) in earnings available to them.

[2+2+2+4=10]

- (b)** Pure Drugs Limited is in the Pharmaceutical Industry and has a business strategy of growing inorganically. It is contemplating to acquire Solid Drugs Limited which has a strong hold in cardiac segment. Pure Drugs Limited has 30 crore shares outstanding which are trading on an average price of ₹ 300 while Solid Drugs Limited has outstanding shares 20 crore and are selling at an average price of ₹ 200 per share. The EPS are of ₹ 12 and ₹ 6 for Pure Drugs Limited and Solid Drugs Limited respectively. Recently, the management of both the companies had a meeting wherein number of alternative proposals was considered for exchange of shares. They are —
- (i) Exchange Ratio should be in proportion to the relative EPS of two companies.
 - (ii) Exchange Ratio should be in proportion to the relative share prices of two companies.
 - (iii) Exchange Ratio should be 3 shares of Pure Drugs Limited for every 5 shares of Solid Drugs Limited.

You are required to estimate EPS and Market Price under the three options, assuming the P/E of Pure Drugs Limited after merger will remain unchanged. Assume that there will not be any synergy gains due the said merger.

[5+5=10]

- 8.(a)** Following is the Profit & Loss Account (extract) and Balance Sheet (extract) for M/s. X Ltd.

| | (₹ in Lakhs) | |
|---------------------------|--------------|------|
| | 2018 | 2019 |
| Turnover | 652 | 760 |
| Pre-tax accounting profit | 134 | 168 |
| Taxation | 46 | 58 |
| Profit after tax | 88 | 110 |
| Dividends | 30 | 36 |
| Retained earnings | 58 | 74 |

Balance Sheet extracts are as follows:

| | (₹ in Lakhs) | |
|--------------------------------|--------------|------|
| | 2018 | 2019 |
| Fixed Assets | 240 | 312 |
| Net Current Assets | 260 | 320 |
| Total | 500 | 632 |
| Equity Shareholders Funds | 390 | 472 |
| Medium and Long-term Bank Loan | 110 | 160 |

The Company's performance in regard to turnover had increased by 17% along with increase in pre-tax profit by 25% but shareholders are not satisfied by the Company's preference in the last 2 years. You are required to calculate the Economic Value Added, as suggested by X Ltd., so that reasons of non-satisfaction can be evaluated.

You are also given:

| Particulars | 2018 | 2019 |
|------------------------------|------|------|
| Pre-tax Cost of Debt | 9% | 10% |
| Cost of Equity | 15% | 17% |
| Tax rate | 35% | 35% |
| Interest Expenses (in lakhs) | ₹ 8 | ₹ 12 |

[10]

- (b)** The shareholders of A Co. Ltd., have voted in favour of a buyout offer from B Co. Ltd. Information about each firm is given here below. Moreover, A Co. Ltd.'s shareholders will receive one share of B Co. Ltd. stock for every three shares they hold in A Co. Ltd.

| Particulars | B Co. Ltd. | A Co. Ltd. |
|-------------------------------|------------|------------|
| Present earnings (in ₹ lakhs) | 6.75 | 3.00 |
| EPS (in ₹) | 3.97 | 5.00 |
| Number of shares (Lakhs) | 1.70 | 0.60 |
| P/E ratio | 20 | 5 |

- (i) What will be the EPS of B Co. Ltd. after the merger?
 (ii) What will be the PE ratio if the NPV of the acquisition is zero?
 (iii) What must B Co. Ltd. feel would be the value of the synergy between these firms?

[10]