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) _____ _____ is an application of process benchmarking, within an organization by comparing the performance of similar business units or business process.

(A) Internal Benchmarking;
(B) Process Benchmarking;
(C) Product Benchmarking;
(D) None of the above.

Answer:

(A) — Internal Benchmarking

Internal Benchmarking is an application of process benchmarking, within an organization by comparing the performance of similar business units or business process.

(ii) _____ _____serve middle level managers and help in taking decisions for a **period of 2-3 years.**

(A) Tactical-level information systems;
(B) Strategic-level information systems;
(C) Operational-level information systems;
(D) None of the above.

Answer:

(A) — Tactical-level information systems

Tactical-level information systems serve middle level managers and help in taking decisions for a period of 2-3 years.

(iii) TQM has _____ concepts.

(A) 2
(B) 3
(C) 4
(D) None of the above.

Answer:

(B) — 3

There are three core concepts of TQM — Quality Control, Quality Assurance and Quality Management.

(iv) Demand schedules are of _____ types.

(A) three
(B) two
(C) Four
(D) None of the above

Answer:

(B) — two

Demand schedules are of two types —
a) Individual Demand Schedule,
b) Market Demand Schedule.

(v) One of the forms of risk management mostly practiced by insurance companies is _____ _____.

(A) Probability of Ruin;
(B) Risk reduction;
(C) Risk Pooling;

(D) Risk Mapping.

Answer:

(C)— Risk Pooling.

One of the forms of risk management mostly practiced by insurance companies is Risk Pool. Under this system, insurance companies come together to form a pool, which can provide protection to insurance companies against catastrophic risks such as floods, earthquakes etc. The term is also used to describe the pooling of similar risks that underlies the concept of insurance.

2. (a) (i) An overwhelming 91 percent of the respondents indicated that risk management is either a very important (55 percent) or moderately important (36 percent) aspect to their CRM projects. Why is it so important?
[5]

Answer:

Following are the CRM initiatives which may have impact on an organization:

- Increased expectations from senior management to increase revenues, reduce costs, increase market share and increase business flexibility may put tremendous pressure on the organization and may potentially compromise the internal control structure;
- Increased complexity of managing multiple channels, technologies, customer relationships and customer definitions;
- Vital and confidential customer information may be transmitted and shared across new networks, systems and platforms;
- Significant changes to the organization, attitudes and beliefs, placing heavy reliance on the organization's employees for the successful adoption of the solution.

These factors may cause many risks to the organization, for instance, the potential disruption of vital operations; violations to customer privacy and confidentiality; ineffective, inconsistent or inefficient processes; lack of internal business controls; poor customer service; incorrectly targeted sales and marketing efforts, non acceptance of new systems and processes; and security breaches.

All the above mentioned are required to be well protected through CRM and it has made CRM important for the organizations.

(i) 'There are five basic components of Supply Chain Management' — Discuss. [5]

Answer:

Following are the five basic components of Supply Chain Management —

1. Plan: This is the strategic portion of SCM. You need a strategy for managing all the resources that go toward the meeting customer demand for your product and services.
2. Source: Choose the suppliers that will deliver the goods and services you need to create your product. Develop a set of pricing, delivery and payment processes with suppliers and create metrics for monitoring and improving the relationships.
3. Make: This is the manufacturing step. Schedule the activities necessary for production, testing, packaging and preparation for delivery.
4. Deliver: This is the part that many insiders refer to as logistics. Coordinate the receipt of orders from customers, develop a network of warehouses, pick carriers to get products to customers and set up an invoicing system to receive payments.
5. Return: The problem part of the supply chain. Create a network for receiving defective and excess products back from customers and supporting customers who have problems with delivered products.

(b)Enumerate the essential elements of Manufacturing Resource Planning (MRP II). [10]

Answer:

Essential Elements of MRP II: The essential elements of MRP II system are as follows:

- Demand Forecast - it takes into account firm orders and sales forecasts.
- Production Planning - it converts the demand forecast into a broad statement of output requirements and the necessary production program.
- Resource Planning - it determines the manufacturing resources (materials and bought-in components etc.) required to meet the production program.
- Rough-cut Capacity Planning - it is used to test the feasibility of meeting the production program, taking into account the capacity available.

- Master Production Schedule - it is prepared on the basis of the information obtained from the demand forecasting, production planning, resource planning and rough-cut capacity planning processes.
- Bills of Material - it is storage of basic data for defining products, i.e., lists of the components and material required to produce the end-product or assembly.
- Materials Requirement Planning - which determines component and material requirements on the basis of information from the master production schedules and the purchasing and inventory control function,
- Detailed Material and Capacity Plans - which set out the detailed schedules for providing material and capacity as derived from the material requirement plans and detailed capacity planning - only if capacity is available is the plan allowed to proceed.
- Shop and Purchase Order Release - which activate production and purchasing.
- Shop-floor Control - which monitors production against the plan and feeds back which enables the master production schedule and capacity and material plans to be updated.
- Purchase and Inventory Control - which monitors purchasing against the material plans and feeds back to the master production schedules and material plans to enable updating to take place as required, Inventory control are also maintained on the basis of shop-floor usage.

3. (a) (i) A firm assumes a cost function $c(x) = x\left(\frac{x^2}{10} + 200\right)$, x is a monthly output in thousands of units. Its revenue function is given by $R(X) = \left(\frac{2200 - 3x}{2}\right)x$. Find i) If the firm decides to produce 10,000 units per month, the firms cost and Marginal cost. ii) If the firm decides to produce Marginal cost of 320, the total cost of the firm. iii) The marginal revenue function. iv) If a decision is taken to produce 10,000 units each month, the total revenue and marginal revenue of the firm. v) If the firm produces with a marginal revenue of 1040, the firm's monthly revenue.
[12]

Answer:

$$c = x\left(\frac{x^2}{10} + 200\right) = \frac{x^3}{10} + 200x$$

X = '000 units p.m.

$$R = \left(\frac{2200-3x}{2}\right)x = \frac{2200x-3x^2}{2}$$

i) if firm output - 10,000 units per month

$$\text{Cost} = 10\left(\frac{100}{10} + 200\right) = 2100$$

$$\text{MC} = \frac{dc}{dx} = \frac{3x^2}{10} + 200$$

$$\text{Marginal Cost (at } x = 10) = \frac{3(100)}{10} + 200 = 230$$

ii) Here, MC = 320

$$\frac{3x^2}{10} + 200 = 320$$

$$3x^2 + 2000 = 3200$$

$$3x^2 = 1200$$

$$x^2 = 400$$

$$x = \sqrt{400} = 20$$

$$\text{Therefore, Total cost} = \frac{(20)^3}{10} + 200 \times 20 = 800 + 4000 = 4800$$

iii) Marginal Revenue

$$= \text{MR} = \frac{dR}{dx} = \frac{2200}{2} - \frac{6x}{2}$$

$$= 1100 - 3x$$

iv) Total revenue at x = 10

$$\text{is } \frac{2200 \times 10 - 3(100)}{2} = \frac{22000 - 300}{2} = \frac{21700}{2}$$

$$= 10,850$$

$$\text{Marginal Revenue} = 1100 - 3 \times 10 = 1070$$

v) Given, MR = 1040

i.e. $1100 - 3x = 1040$

$-3x = -60$

$x = 20$

$$\text{Monthly Revenue} = \frac{2200 \times 20}{2} - \frac{3 \times 400}{2}$$

$$= 22000 - 600 = 21400$$

(b) 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 = 0.250
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 = 3 times **[8]**

Answer:

As the Book Value of Equity to Book Value of Total Debt is given in the problem in place of Market Value of Equity to Book Value of Total Debt, the value of Z-score is to be computed as per Altman's 1983 Model of Corporate Distress Prediction instead of Altman's 1968 Model of Corporate Distress Prediction.

As per Altman's Model (1983) of Corporate Distress Prediction,

$Z=0.717\ X_1 + 0.847\ X_2 + 3.107\ X_3 + 0.420\ X_4 + 0.998\ X_5$

Here, the five variables are as follows:

X_1 = Working Capital to Total Assets = 0.250

X_2 = Retained Earnings to Total Assets = 0.50

X_3 = EBIT to Total Assets = 0.19

X_4 = Book Value of Equity Shares to Book Value of Total Debt = 1.65

X_5 = Sales to Total Assets = 3 times

Hence, Z-score = (0.717 x 0.25) + (0.847 x 0.50) + (3.107 x 0.19) + (0.420 x 1.65) + (0.998 x 3)

= 0.17925 + 0.4235 + 0.59033 + 0.693 + 2.994 = 4.88

Note: As the calculated value of Z-score is much higher than 2.9, it can be strongly predicted that the company is a non-bankrupt company (i.e., non-failed company).

4. (a) "Risk Management Process refers to the process of measuring or assessing risk and then developing strategies to manage risk." Discuss the steps, which are taken to minimize the risk. **[10]**

Answer:

Risk Management Process refers to the process of measuring or assessing risk and then developing strategies to manage risk. In the risk management, the following steps are taken up to minimize the risk;

Step 1: Risk Identification and Assessment:
This step involves event identification and data collection process. The institution has to put in place a system of capturing information either through key risk drivers (KRIs) or through a rating system. Once risks are identified, combine like risks according to the following key areas impacted by the risks — people, mission, physical assets, financial assets, and customer/ stakeholder trust.

Step 2: Risk Quantification and Measurement:
The next step is to Quantify and Measure risks-tins means Rate risks according to probability and impact. Various standard tools are used by financial institutions to measure risk and understand their impact in terms of capital or its importance to the organization through a scoring technique.

Step 3: Risk Analysis, Monitor and Reporting:
The next step is risk analysis, monitoring and reporting. This will help one to get the big picture and decided on the approach to risk management.

Step 4: Capital Allocation:
Risk Analysis, Monitoring & Reporting sends information to the top management of the organization to take strategic decisions. Capital allocation plays key role in management decision making.

Step 5: Risk Management and Mitigation:
After the above step, the last step is to make strategic decisions to manage the risk in order to mitigate free risks.

(b) Discuss — 'OLAP'. [10]

Answer:

On-line Analytical Processing (OLAP) is a category of software technology that enables analysts, managers and executives to gain insight into data through fast, consistent, interactive access to a wide variety of possible views of information that has been transformed from raw data to reflect the real dimensionality of the enterprise as understood by the user.

OLAP functionality is characterized by dynamic multi-dimensional analysis of consolidated enterprise data supporting end user analytical and navigational activities including:

- Calculations and modeling applied across dimensions, through hierarchies and/ or across members

- Trend analysis over sequential time periods
- Slicing sub-sets for on-screen viewing
- Drill-down to deeper levels of consolidation
- Reach-through to underlying detail data
- Rotation to new dimensional comparisons in the viewing area.

OLAP is implemented in a multi-user client/server mode and offers consistently rapid response to queries, regardless of database size and complexity. OLAP helps the user synthesize enterprise information through comparative, personalized viewing, as well as through analysis of historical and projected data in various "what-if" data model scenarios. This is achieved through the use of an OLAP server.

An OLAP server is a high-capacity, multi-user data manipulation engine, specifically designed to support and operate on multi-dimensional data structures. The OLAP server may either physically stage the processed multidimensional information to deliver consistent and rapid response times to end users, or it may populate its data structures in real-time from relational or other databases, or offer a choice of both. Given the current state of technology and the end user requirement for consistent and rapid response times, staging the multi-dimensional data in the OLAP Server is often the preferred method.

The core of any OLAP system is an OLAP cube (also called as hypercube). It consists of numeric facts called measures which are categorized by dimensions.

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) If a company has a P/E ratio of 12 and a Market to Book Value Ratio 2.10, then its Return on Equity will be

(A) 14.10%

(B) 17.50%

(C) 25.20%

(D) None of the above

Answer:

(B) — 17.50%

Return on Equity will be 17.5% (2.10/12).

(ii) Ting-Tong Ltd.'s share beta factor is 1.40. The risk free rate of interest on government securities is 9%. The expected rate of return on the company equity shares is 17%. The cost of equity capital based on CAPM is

(A) 17%
(B) 12.6%
(C) 20.2%
(D) 9%

Answer:

(C) — 20.2%

[9%+1.40(17%-9%)]= 9% + 11.2% = 20.2%

(iii) Firms that intend to buy only a small percentage of the outstanding stock can buy them in the market, in a process called

(A) Repurchase tender offer
(B) Open market purchase
(C) Privately negotiated repurchase
(D) None of the above

Answer:

(B) — Open market purchase

(iv) Assume that the following details are given for a company:
Sales - ₹1,00,000; Costs - ₹75,000; Depreciation - ₹20,000; Tax - 30%; Change in Net Working Capital - ₹1,000; Change in Capital Spending - ₹10,000. The Free Cash Flow to Firm (FCFF) for the given data would be:

(A) ₹ 10,000
(B) ₹ 12,500

(C) ₹ 13,500

(D) ₹ 15,000.

Answer:

(B) — ₹12,500

Sales – Cost –Depreciation	₹ 5,000
Less – Tax	₹ 1,500
PAT	₹ 3,500
Add – Deprecation	₹20,000
Less – Change in Net Working Capital	₹1,000
Less – Change in Capital Spending	₹10,000
Free Cash Flow to Firm (FCFF)	₹12,500

(v) _____ is a measure of value of which tells whether a company is able to generate returns that exceed the costs of capital employed.

(A) Cost of capital

(B) Economic Value Added

(C) Market value added

(D) Financial profit

Answer:

(B) — Economic Value Added

Economic Value Added is a measure of value of which tells whether a company is able to generate returns that exceed the costs of capital employed.

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 0.80. Treasury bond rate is 7.5%. A premium of 5.50% is used for market.

Calculate value of stock. [10]

(b) Yummy Ltd. had earning per share of ₹11.04 in 2016-17 and paid a dividend of ₹7 per share. The growth rate in earnings and dividends in the long term is expected to be 5%. The return on equity at Yummy Ltd. is expected to be 13.66%. The beta of Yummy Ltd. is 0.80 and the risk free Treasury bond is 6% while risk premium is 4%. Based on the information, calculate price to Book Value Ratio. **[5]**

(c) Describe the three variations of Relative Valuation. **[5]**

Answer:

(a) Estimating Value:

Long term bond rate 7.5%

Cost of equity = 7.5% + (0.80 x 5.50%) = 11.9%

Expected growth rate 6%

Base year FCFE = Earning per share – (Capital Exp. – Dep.) (1 – Debt Ratio) – Change in working capital (1 – Debt Ratio)

=3.15 – (3.15 – 2.78) (1 – 0.25) – 0.50 (1 – 0.25)

=2.49

Value per share = 2.49 x 1.06 / (0.119 – 0.06) = ₹44.74.

(b) Current dividend payout ratio = 7 / 11.04 x 100 = 63.41%

Expected growth rate in earnings and dividends = 5%

Return on equity = 13.66%

Cost of equity = 6% + 0.80 x 4% = 6% + 3.2% = 9.20%

PBV Ratio = ROE x Payout Ratio / (Cost of equity – Growth rate)

= 0.1366 x 0.6341 / (0.092 – 0.05) = 2.06

(c) In relative valuation, the value of an asset is based upon how similar assets are priced. In practice, there are three variations of relative valuation, with the differences primarily in how we define comparable firms and control for differences across firms:

(i) Direct comparison: In this approach, analysts try to find one or two companies that look almost exactly like the company they are trying to value and estimate the value based upon how these similar companies are priced. The key part in this analysis is identifying these similar companies and getting their market values.

(ii) Peer Group Average: In the second, analysts compare how their company is priced (using a multiple) with how the peer group is priced (using the average for that multiple). Thus a stock is considered cheap if it trade at 12 times earnings and the average price earnings ratio for the sector is 15. Implicit in this approach is the assumption that while companies may vary widely across a sector, the average for the sector is representative for a typical company.

(iii) Peer group average adjusted for differences: Recognizing that there can be wide differences between the company being valued and other companies in the comparable firm group, analysts sometimes try to control for differences between companies. In many cases, the control is subjective: a company with higher expected growth than the industry will trade at a higher multiple of earnings that the industry average but how much higher is left unspecified. In a few cases, analysts explicitly try to control for differences between companies by either adjusting the multiple being used or by using statistical techniques. As an example of the former, consider PEG ratios. These ratios are computed by dividing PE ratios by expected growth rates, thus controlling (at least in theory) for differences in growth and allowing analysts to compare companies with different growth rates.

7. (a) Two firms R and K Corporation operate independently and have the following financial statements:

Particulars	R	K
Revenues	**₹8,00,000**	**₹4,00,000**
Cost of Goods Sold (COGS)	**₹6,00,000**	**₹2,40,000**
EBIT	**₹2,00,000**	**₹1,60,000**
Expected growth rate	**6%**	**8%**
Cost of capital	**10%**	**12%**

Both firms are in steady state, with capital spending offset by depreciation. No working capital is required, and both firms face a tax rate of 40%. Combining the two firms will create economies of scale in the form of shared distribution and advertising cost, which will reduce the cost of goods sold from 70% of revenues to 65% of revenues. Assume that the firm has no debt capital.

Estimate

(i) The value of the two firms before the merger

(ii) The value of the combined firm with synergy effect **[5+5]**

Answer:

(i) Value of the Firms before the Merger

Calculation of Free Cash Flow to each of the Firm
Free cash flow to R = EBIT (1 – tax rate)
= 2,00,000 (1 – 0.4) = ₹1,20,000
Free cash flow to K = EBIT (1 – tax rate)
= 1,60,000 (1 – 0.4) = ₹96,000
Value of the two firms independently
Value of R = [1,20,000 (1.06)] / (0.10 – 0.06) = ₹31,80,000
Value of K = [96,000 (1.08)] / (0.12 – 0.08) = ₹25,92,000
In the absence of synergy the combined firm value is:
Combined Firm Value with No Synergy = 31,80,000 + 25,92,000 = ₹57,72,000

(ii) Value of the Firm with Synergy

On combining the two firm the cost of goods sold is reduced from 70% to 65% of revenues.
The revenue of the combined firm = 8,00,000 + 4,00,000 = ₹12,00,000
Cost of goods sold = 65% of revenues
= 0.65 × 12,00,000 = ₹7,80,000
Weighted average cost of capital for the combined firm
= 10% [31,80,000 / 57,72,000] + 12% [25,92,000 / 57,72,000]
= 0.0551 + 0.0539 = 0.109
Or 11% approximately
Weighted average expected growth rate for the combined firm
= 6% [31,80,000 / 57,72,000] + 8% [25,92,000 / 57,72,000]
= 0.033 + 0.0359 = 0.0689
Or 7% approximately

Particulars	Firm with no synergy	Firm with synergy
Revenues	12,00,000	12,00,000
Cost of Goods Sold (COGS)	8,40,000	7,80,000
EBIT	3,60,000	4,20,000
Growth rate	7%	7%
Cost of capital	11%	11%
FCF = EBIT (1 – T)	2,16,000	2,52,000

Value of the Firm without Synergy
[2,16,000 (1.07)] / 0.11 – 0.07 = ₹57,78,000
Value of the firm with Synergy

= [2,52,000 (1.07)] / 0.11 – 0.07 = ₹67,41,000.

(b) The following information is provided related to the acquiring firm Big Limited and the target firm Tall Limited:

	Big Ltd.	Tall Ltd.
Profit after tax (PAT)	**₹ 2,000 Lakhs**	**₹ 400 Lakhs**
Number of Shares outstanding	**200 Lakhs**	**100 Lakhs**
P/E ratio	**10**	**5**

You are required to calculate -

(i) What is the swap ratio based on current market price? [2]

(ii) What is the EPS of Big Ltd after acquisition? [2]

(iii) What is the expected market price per share of Big Limited after acquisition, assuming P/E ratio of Big Limited remains unchanged? [2]

(iv) Determine the market value of the merged firm. [2]

(v) Calculate gain/loss for shareholder of the two independent companies after acquisition. [2]

Answer:

EPS before acquisition:

Big Ltd. ₹ 2,000 lakhs/200 lakhs = ₹ 10

and Tall Ltd. ₹ 400/100 = ₹4

Market price of share before an acquisition = EPS×PE ratio:

Big Ltd. ₹ 100 and Tall Ltd. ₹20

(i) Swap ratio based on current market prices: ₹ 20/₹ 100 = 0.2 that is one share of Big limited for 5 shares of Tall limited. Number of shares to be issued 100 lakhs × 0.2 = 20 lakhs

(ii) EPS after acquisition = (2000 lakhs + 400 lakhs) ÷ (200 lakhs + 20 lakhs) = ₹ 10.91

(iii) Expected market price per share of Big Ltd. After an acquisition after assuming PE ratio of Big limited remains unchanged is ₹ 10.91 × 10 = ₹ 109.10

(iv) Market value of Merged Firm = ₹ 109.10 × 220 lakh shares = ₹ 240.02 crores

(v) Gain from the merger: Post merger market value of merged firm 240.02 Crores (minus pre merger market value of both firms i.e. ₹ 200 crores and ₹ 20 crores) = (240.02 – 220.00) = ₹ 20.02 crores

Gain to shareholders of both the firms :	Big Ltd.	Tall Ltd.
Post merger value	218.20	21.80
Less: Pre-merger value	200.00	20.00
Gain to share holders	18.20	1.82

8. (a) From the following details, compute the total value of human resources of skilled and unskilled group of employees according to Lev and Schwartz (1971) model:

Particulars	Skilled	Unskilled
(i) Annual average earning of an employee till the retirement age.	₹1,40,000	₹1,00,000
(ii)Age of retirement	65 years	62 years
(iii) Discount rate	15%	15%
(iv)No. of employees in the group	30	40
(v) Average age	62 years	60 years

[10]

Answer:

According to Lev and Schwartz, the value of human capital embodied in a person of age τ is the present value of his remaining future earnings from employment. Their valuation model for a discrete income stream is given by the following formula:

$$V = \sum_{t=r}^{t} \frac{I(t)}{(1+r)^{t-T}}$$

Where,

V = the human capital value of a person

I(t) = the person's annual earnings up to retirement.

r = a discount rate specific to the person.

t = retirement age.

Value of Skilled Employees:

$$= \frac{1,40,000}{(1+0.15)^{65-62}} + \frac{1,40,000}{(1+0.15)^{65-63}} + \frac{1,40,000}{(1+0.15)^{65-64}}$$

$$= \frac{1,40,000}{(1+0.15)^{3}} + \frac{1,40,000}{(1+0.15)^{2}} + \frac{1,40,000}{(1+0.15)^{1}}$$

$$= ₹(92,052.27 + 1,05,860.11 + 1,21,739.13)$$

= ₹ 3,19,651.51.

Total value of skilled employees is

₹ 3,19,651.51× 30 employees = ₹ 95,89,545.30.

Value of Unskilled Employees:

$$= \frac{80,000}{(1+0.15)^{62-60}} + \frac{80,000}{(1+0.15)^{62-61}}$$

$$= \frac{80,000}{(1+0.15)^{2}} + \frac{80,000}{(1+0.15)^{1}}$$

$$= ₹\ (60,491.49 + 69,565.22) = ₹\ 1,30,056.71$$

Total value of Unskilled employees is

=₹ 1,30,056.71 × 40 employees = ₹ 52,02,268.40.

Total value of human resources (Skilled and Unskilled)
= ₹(95,89,545.30 + 52,02,268.40)= ₹ 147,91,813.70.

(b) Give below is the Balance sheet (draft) of Laxmi Ltd. as on 31-03-2018:

Liabilities	₹ (In lakh)	Assets	₹ (In lakh)
Share Capital (Share of ₹ 10)	100	Land & Buildings	40
Reserves & Surplus	40	Plant & Machinery	80
Creditors	40	Investments	10
		Stock	30
		Debtors	15
		Cash at Bank	05
	180		180

You are required to work out the value of the company's shares on the basis of Net Assets method and Profit—earning capacity (capitalization) method and arrive at the fair price of the shares, by considering the following information:

(i) 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.

(ii) In subsequent years, additional advertisement expenses of ₹ 5 lakh are expected to be incurred each year.

(iii) Market Value of Land and Buildings & Plant and Machinery has been ascertained at ₹ 96 lakhs and ₹ 100 lakhs respectively. This will entail additional depreciation of ₹ 6 lakh each year.

(iv) Effective income tax rate is 30% including all other charges.

(v) The Capitalization rate applicable to similar business is 16%. **[10]**

Answer:

Net Assets Method

Assets	**₹ (in Lakh)**
Land and Building	96
Plant and Machinery	100
Investments	10
Stock	30
Debtors	15
Cash at Bank	5
Total Assets	256
Less : Creditors	40
Net Assets	216

Value per Share

Number of Shares = 100 lakhs/10 = 10 lakhs

Value per share = Net Assets/No. of shares = ₹ 216 lakhs/10 lakhs = ₹ 21.60

Profit Earning Capacity Method

	₹ (in lakhs)
Profit before tax	64
Less : extraordinary income	4
Less : Investment income not likely to recur	1
Less : additional expenses for forthcoming years-Advertisement	5
Less : depreciation on revaluation	6
Expected Earnings before taxes	48
Less : income taxes@ 30%	14.4
Future Maintainable Profit	33.6

Value of business = $\frac{\textbf{Futire Maintainable profit}}{\textbf{Capitalization factor}} = \frac{33.6}{0.16}$ = ₹ 210 lakhs

Subtracting external liabilities we get Net value of business. Value of share would be Net value of Business divided by number of shares = (₹ 210 lakhs - ₹ 40 lakhs)/10 lakhs = ₹ 17.00

Total Price of share	**₹ (in lakhs)**

Value as per net assets method	21.6
Value as per profit earning capacity(Capitalization) method	17.0

Fair price = Average of the two = ₹ 19.30 per share