FINAL EXAMINATION

June 2023

P–20A(SPMBV)
Syllabus 2022

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.
Wherever considered necessary, suitable assumptions may be made and clearly indicated in the answer.

Section-A : Strategic Performance Management

Answer Question Nos. 1 and 5 *are compulsory;*
Answer any two *from* Question Nos. 2, 3 *and* 4.

1. Choose the correct alternative. Provide justification in each case. 1 mark is allotted for correct selection and 1 mark for the justification: 2×5=10

(i) 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

(ii) If the average cost function of a firm is given by AC = $x^2 - 4x + 7$, where x is the output, what will be its marginal cost?

(A) $2x^3 - 4x^2 + 7x$
(B) $3x^2 - 8x + 7$
(C) $x^3 - 8x^2 + 7x$
(D) None of the above

(iii) Which one of the following is Not true about On-Line Analytical Processing (OLAP)?

(A) OLAP functionality includes trend analysis over sequential time periods.
(B) It provides slicing subsets for on-screen viewing.
(C) It is a category of hardware technology.
(D) It helps the end user to drill-down to deeper levels of consolidation data.

(iv) The program which encompasses the planning and management of all activities involved in sourcing procurement, conversion and logistics management activities is called ___________.

(A) Supply Chain Management
(B) Customer Relationship Management
(C) Total Quality Management
(D) None of the above

(v) The total revenue function and the total cost function for a firm is given as under:

Total revenue (TR) = $4000Q - 33Q^2$ and

Total cost (TC) = $2Q^3 - 3Q^2 + 400Q + 5000$,

Assuming $Q > 0$, the maximum profit of the firm is

(A) ₹ 39,000

(B) ₹ 93,000

(C) ₹ 52,000

(D) ₹ 25,000

2. (a) Examine the cash flow patterns given below, infer and comment on the financial state/position of a company (each part is independent of the other)

Cash Flow Patterns	Net Cash flows from Operating Activities	Net Cash flows from Investing Activities	Net Cash flows from Financing Activities
(i) Pattern#1	(–)	(–)	(–)
(ii) Pattern#2	(+)	(–)	(–)
(iii) Pattern#3	(–)	(+)	(–)
(iv) Pattern#4	(–)	(+)	(+)
(v) Pattern#5	(+)	(–)	(+)

10

(b) Explain Data Envelopment Analysis (DEA) and the concept of 'Relative Efficiency' in the context of DEA. Give any two areas of applications where DEA can be used. 6

3. (a) Given below the long-term rating scaling of CRISIL. You are required to write what each rating scale suggest. If a rating has (+) or (–) attached with it, then what does it signify?

Rating

CRISIL AAA

CRISIL AA

CRISIL A

CRISIL BBB

CRISIL BB

CRISIL B

CRISIL C

CRISIL D

6

(b) XYZ Limited has changed one of its performance evaluation criteria. To know how its profitability is driven by some underlying factors like assets utilization and leverage, the company has adopted DuPont Analysis. Therefore, you are requested to *determine the underlying factors – profitability, assets utilization and leverage* which are driving the performance of XYZ Limited measured in terms of Return on Equity on the basis of the following information extracted from the Company's Annual Report of 2022-23. Also, comment on the drivers behind ROE.

BALANCE SHEET OF XYZ LIMITED AS AT 31st March

(₹ *in Crores*)

Particulars	2021-22	2022-23
ASSETS:		
NON-CURRENT ASSETS:		
Property, Plant and Equipment		
Capital-Work-in-Progress	78,500.00	91,350.00
Intangible assets	265.00	275.00
Intangible assets under development	41,390.00	47,200.00
	1,20,155.00	**1,38,825.00**
Financial Assets:		
Non-current investment	7,155.00	7,950.00
Long-term loans and advances	15,525.00	16,980.00
Total Non-Current Assets	**22,680.00**	**24,930.00**
CURRENT ASSETS:		
Inventories	7,453.00	7,192.00
Financial Assets:		
Trade receivables	7,604.00	7,844.00
Cash and bank balances	12,879.00	4,406.00
Other current assets	5,142.00	7,711.00
Total Current Assets	**33,078.00**	**27,153.00**
TOTAL ASSETS	**1,75,913.00**	**1,90,908.00**
EQUITY AND LIABILITIES		
EQUITY:		
Equity Share Capital	8,245.00	8245.00
Other Equity	73,415.00	80,540.00
Total Equity	**81,660.00**	**88,785.00**
NON-CURRENT LIABILITIES		
Financial Liabilities:		
Long-term borrowings	78,532.00	85,083.00
Deferred tax liabilities (Net)	979.00	1,152.00
Long term provisions	1,116.00	436.00
Total Non-Current Liabilities	**80,627.00**	**86,671.00**
CURRENT LIABILITIES		
Financial Liabilities:		
Short-term borrowing	400.00	1,300.00
Trade payables	5,953.00	5,503.00
Short term provisions	7,273.00	8,649.00
Total Current Liabilities	**13,626.00**	**15,452.00**
TOTAL EQUITY AND LIABILITIES	**1,75,913.00**	**1,90,908.00**

STATEMENT OF PROFIT AND LOSS OF XYZ LIMITED FOR THE YEAR ENDING ON 31st March		
		(₹ in Crores)
Particulars	**2021-22**	**2022-23**
Revenue from operations	73,910.00	71,236.00
Non-operating Income	670.00	730.00
Total Revenue	**74,580.00**	**71,966.00**
Expenses:		
Raw Material and Purchase	48,834.00	43,793.00
Employee benefits expenses	3,621.00	3,609.00
Interest Cost	2,744.00	3,230.00
Depreciation and amortization expenses	4,912.00	5,425.00
Administration & other expenses	4,911.00	5,787.00
Total Expenses	**65,022.00**	**61,844.00**
PROFIT/(LOSS) BEFORE TAX	**9,558.00**	**10,122.00**
Current Tax@33% of taxable income	3,154.14	3,340.26
PROFIT/(LOSS) AFTER TAX	**6,403.86**	**6,781.74**

10

4. (a) XYZ Ltd. decides to use two financial plans and they need ₹ 50,000 for total investment

Particulars	**Plan A**	**Plan B**
Debenture (interest at 10%)	₹ 40,000	₹ 10,000
Equity share (₹ 10 each)	₹ 10,000	₹ 40,000
Total investment needed	₹ 50,000	₹ 50,000
Number of equity shares	1,000	4,000

The earnings before interest and tax are assumed at Rs.5,000 and Rs.12,500 as the two possible situations. The tax rate is 50%. Calculate the EPS. Advise the management as to the appropriate course of action. 10

(b) M/s XYZ Bank financial particulars for the year end 31.03.2023 is as follows:

Common shares:	₹ 500 cr
Statutory reserves:	₹ 250 cr
Capital reserves:	₹ 300 cr
Balance in P&L Account at the end of the previous FY -	₹ 150 cr
Revaluation reserves:	₹ 200 cr
Provisions and Loss Reserves:	₹ 300 cr
Debt Capital Instruments:	₹ 200 cr
Perpetual Debt Instruments (PDI):	₹ 50 cr
Perpetual Cumulative Preference Shares (PCPS):	₹ 50 cr
Redeemable Cumulative Preference Shares (RCPS):	₹ 50 cr
RWA for credit and operational risk are	₹ 12,000 cr
RWA for market risk	₹ 5,000 cr

Based on the above information, answer the following questions:

(i) Calculate the amount of capital fund.

(ii) What is the capital adequacy ratio of the bank?

(iii) Comment and advice on the adequacy of capital of the bank and the need to monitor this ratio. 6

5. Khurana Enterprises started its business in the year 2015 with a share capital of ₹10,00,000. It increased last year. In the last seven years, the performance of the company was financially sound hence, at the end of Accounting Year 2022, the directors of Khurana Enterprises decided to expand their business. The return on capital employed is 15% in 2021 and 12.9% in 2022. Similar kind of firms have an 11% average return on capital employed. The gross margin ratio has also decreased. Operating ratio which is calculated with expenses to sales has fallen in 2022 by 1 %. Current and quick ratios are constant in both the years but there has been deterioration in stock turnover and debtor turnover ratios. The company did not use any long-term loans in 2022 but 6% debentures were issued for ₹ 5,00,000 in 2023 to expand the business. The company is in the highest income tax bracket however it is not in surcharge limit.

Answer the following questions:

(i) Is the decision of directors for expansion justified?

(ii) What are the chances of further growth of the firm? 8

Section – B : Business Valuation

Answer to Question Nos.6 and 10 *are compulsory;*

Answer any two *from* Question Nos.7, 8 & 9.

6. Choose the correct alternative. Provide justification in each case. 1 mark is allotted for correct selection and 1 mark for the justification: 2×5=10

(i) The price that a willing buyer pays to a willing seller in a transaction at the open market is known as _________.

(A) Fair Value

(B) Equitable Value

(C) Investment Value

(D) None of the above

(ii) If business is financed solely through equity, then cost of capital is the same as _________.

(A) Cost of Equity

(B) Cost of Debt

(C) Cost of Retained earnings

(D) None of the above

(iii) If a company is having higher price to Book Value Ratio than those of the peers in the industry, it may be due to the fact that _________.

(A) it enjoys better goodwill in the market

(B) it has strong brands of its products

(C) it may have a lot of intangibles not reflected in its Balance Sheet

(D) All the above statements are true

(iv) If earnings per share of a company is ₹10 and the price earnings ratios of other similar companies is 5, then market value of share of the company will be ₹ _________.

(A) 50

(B) 2

(C) 0.5

(D) 7.5

(v) If stock A has a beta of 1.6 and stock B has a beta of 1.2, they make up the portfolio in the ratio of 70 : 30. What would be the beta of the portfolio ________?

(A) 1.48

(B) 2.48

(C) 1.92

(D) Beta cannot be calculated

7. (a) Explain the different 'standard of value' along with book value and liquidation value used in business valuation. 6

(b) Mr. Tarak wishes to acquire shares of M/s Raghuvans Ltd. to hold them for long term as sound investment, at the current market price of ₹ 50 per share. The price is expected to go upto a high of ₹ 55 per share in short run.

He has obtained the following information:

Recent EPS = INR 2.00
Growth rate (constant) = 5%
Dividend Payout Ratio = 50%
Required Rate of Return = 10%
After five years the P/E ratio is expected to be 10.5

Please advice whether Mr. Tarak should buy the shares at proposed price? 10

8. (a) Company X has paid a dividend of ₹ 10 per share last year (D) and its dividend is expected to grow at 5% every year. If an investor's expected rate of return from Company X share is 7%, estimate the market price of the share as per the dividend discount model. 6

(b) Consider the following information extracted from the records of Global Logistic Limited.

(₹ in Crores)

	Actual	Projected				
	2022-23	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**
Total Revenue	88.04	95.54	111.33	119.96	133.35	138.6
Cost of Goods Sold	26.62	38.31	42.59	52.11	52.06	51.3
Gross Profit	**61.42**	**57.23**	**68.74**	**67.85**	**81.29**	**87.3**
Administrative Expenses	5.44	8.66	7.3	9.37	11.67	9.47
Selling and Distribution Expenses	19.98	24.96	32.08	35.38	37.73	40.72
Depreciation	9.71	8.2	4.2	3.61	5.69	3.44
EBIT	**26.29**	**15.41**	**25.16**	**19.49**	**26.20**	**33.67**
Additional Information:						
Marginal Tax Rate	33.00%	33.00%	33.00%	33.00%	33.00%	33.00%
Increase In Operating Working Capital	5.04	6.13	5.02	7.08	6.78	6.95
Capital Expenditure	2.33	2.18	2.40	2.46	3.56	1.90

Assuming that the Company has 5 crores of equity shares with a face value of ₹ 10 each, Debt of ₹ 60 crores, steady growth rate of 8% in free cash flows after 2027-28 and Weighted Average Cost of Capital (WACC) of 12.5%, determine the value per share using free cash flow valuation method.

	1	2	3	4	5	6	7
Discounting Factor @12.50%	0.8889	0.7901	0.7023	0.6243	0.5549	0.4933	0.4385

10

9. (a) Why is brand valuation needed? Explain the steps in valuation of a brand. 6

(b) The following financial data has been extracted from the financial records of Rainbow Limited:

(₹ in Crores)

Particulars	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**
Assets			
Non-Current Assets			
Property, Plant & Equipment (Net)	₹ 3,500.00	₹ 3,800.00	₹ 4,300.00
Investments	₹ 200.00	₹ 250.00	₹ 300.00
	₹ 3,700.00	₹ 4,050.00	₹ 4,600.00
Current Assets			
Inventories	₹ 2,150.00	₹ 2,500.00	₹ 2,490.00
Other Current Assets	₹ 225.00	₹ 350.00	₹ 480.00
	₹ 2,375.00	₹ 2,850.00	₹ 2,970.00
Total Assets	**₹ 6,075.00**	**₹ 6,900.00**	**₹ 7,570.00**
Equity and Liabilities			
Equity Capital (Face Value – ₹ 10 per share)	₹ 960.00	₹ 960.00	₹ 960.00
Other Equities	₹ 2,800.00	₹ 3,000.00	₹ 3,300.00
Total Equity	**₹ 3,760.00**	**₹ 3,960.00**	**₹ 4,260.00**
Non–Current Liabilities			
Long–Term Debt	₹ 750.00	₹ 875.00	₹ 950.00
Other Non–Current Liabilities	₹ 240.00	₹ 325.00	₹ 450.00
	₹ 990.00	₹ 1,200.00	₹ 1,400.00
Current Liabilities			
Accounts Payable	₹ 1,250.00	₹ 1,650.00	₹ 1,800.00
Other Current Liabilities	₹ 75.00	₹ 90.00	₹ 110.00
	₹ 1,325.00	₹ 1,740.00	₹ 1,910.00
Total Equity and Liabilities	**₹ 6,075.00**	**₹ 6,900.00**	**₹ 7,570.00**

Additional Information :

(₹ in crores)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
Fair Value of Property, Plant and Equipment	₹ 3,850.00	₹ 4,180.00	₹ 4,730.00
Fair Value of Investments	₹ 225.00	₹ 281.25	₹ 337.50
Fair Value of Inventories	₹ 1,945.75	₹ 2,262.50	₹ 2,253.45
Profit for the year	₹ 850.00	₹ 925.00	₹ 1,075.00

Normal Return on Capital Employed is 12.0% and the Capital Employed in the beginning of FY 2020-21 is ₹ 4,850 crores.

If goodwill is calculated as 5 years' purchase based on average super profit, then you are required to calculate Goodwill and Value of the business at the end of FY 2022-23. 10

10. Vikas Ltd. wishes to acquire Nikas Ltd., a small company with good growth prospects. The relevant information for both companies is as follows:

Company	Equity shares Outstanding	Share price (₹)	EAT (₹)	EPS (₹)
Vikas Ltd	10,00,000	25	20,00,000	2
Nikas Ltd	1,00,000	10	2,00,000	2

Vikas Ltd. is considering three different acquisition plans viz.,

(i) Pay ₹ 12.5 per share for each share of Nikas Ltd.

(ii) Exchange ₹ 25 cash and one share of Vikas Ltd for every four shares of Nikas Ltd.

(iii) Exchange one share for every two shares of Nikas Ltd.

Questions

(a) What will Vikas's Earning per share (EPS) be under each of the three plans?

(b) What will share prices of Vikas Ltd. be under each of the three plans, if its current price earnings ratio remains unchanged?

(c) Formulate a strategy for Vikas Ltd to take over Nikas Ltd so that post merger Vikas Ltd gets the best market valuation. 8

SUGGESTED ANSWERS TO QUESTIONS
SECTION - A

1

(i) (A)

(ii) (B)

(iii) (C)

(iv) (A)

(v) (A)

2 (a) :

On examination of the cash flow patterns given and inference drawn from the same, the following comments are provided on the financial state/position of a company (each part is independent of the other)

Cash Flow Patterns	Comments
(i) Pattern-#1	*It is highly unusual pattern. The company may be using existing stock of cash to meet the requirement of operations; investment and at the same time repaying loans, and making payment for interest.* *It is highly unstable pattern for a company.*
(ii) Pattern-#2	*The Company is generating cash from operations to meet its investment requirement and pay interest, debt and dividend to shareholders.* *It represents strong cash flow pattern from operations.* *The Company may be growing moderately, or it may be successful company, or mature company.*
(iii) Pattern-#3	*This pattern is showing that the company is selling its long-term assets and investments and raising cash by borrowing or by issuing shares to meet its requirement of operating activities.* *The Company may be in a financial distress or may be moving towards sickness.*
(iv) Pattern-#4	*It is also a highly unusual pattern. As per this pattern, a Company is meeting the requirement of operating activities by raising cash by borrowing or by issuing shares and also by selling its assets and investments.* *Highly unsustainable pattern; something inherently wrong with the business model.*
(v) Pattern-#5	*The Company is generating cash from operations and raising cash by borrowing money or by issuing shares to meet its investment requirement. The Company may be in late part of growth stage.*

2 (b) :

Data Envelopment Analysis (DEA), originally developed as a performance measurement technique, is a data-oriented decision making tool based on the principle of mathematical programming to compare the relative operational efficiency of a set of comparable decision making units (DMUs) which functions even with multiple inputs and outputs.

It is used to assess the relative performance of a set of DMUs that use multiple inputs to produce multiple outputs. DMUs are units in an organisation which are responsible for taking decisions. These units are under evaluation in DEA. DMUs can include manufacturing units, departments of big organizations such as universities, schools, bank branches, hospitals, power plants, police stations, tax offices, prisons, defense bases, a set of firms or even practicing individuals. The performance of DMUs is assessed in DEA using the concept of relative efficiencies that is, efficiencies of a DMU relative to the best performing DMU. The best-performing DMU is assigned an efficiency score of unity or 100 per cent, and the performance of other DMUs vary, between 0 and 100 per cent relative to this best performance.

Efficiency is the ratio of the input to output in a work process or a labour process and when the efficiency is measured with respect to the best performing DMU, then we get what is called Relative Efficiency – efficiency with respect to the best performing DMU.

DEA can be used to find out which bank is performing more efficiently – private sector bank or public sector. We can also apply DEA when one is studying the relative efficiency of firms in an industry.

3 (a) :

Rating	Description
CRISIL AAA	Securities with this rating are considered to have the highest degree of safety regarding timely servicing of financial obligations. Such securities carry lowest credit risk.
CRISIL AA	Securities with this rating are considered to have high degree of safety regarding timely servicing of financial obligations. Such securities carry very low credit risk.
CRISIL A	Securities with this rating are considered to have adequate degree of safety regarding timely servicing of financial obligations. Such securities carry low credit risk.
CRISIL BBB	Securities with this rating are considered to have moderate degree of safety regarding timely servicing of financial obligations. Such securities carry moderate credit risk
CRISIL BB	Securities with this rating are considered to have moderate risk of default regarding timely servicing of financial obligations.
CRISIL B	Securities with this rating are considered to have high risk of default regarding timely servicing of financial obligations.
CRISIL C	Securities with this rating are considered to have very high risk of default regarding timely servicing of financial obligations.
CRISIL D	Securities with this rating are in default or are expected to be in default soon.

CRISIL may apply '+' (plus) or '–' (minus) signs to certain of its long term ratings to reflect comparative standing within each category, plus indicates higher and minus indicates lower standing within the category.

3 (b) :

DU PONT ANALYSIS	2021-22	2022-23
Net Profit Ratio	8.587%	9.424%
Assets Turnover Ratio	0.424	0.377
Assets to Equity Ratio	2.129	2.123
RETURN ON EQUITY	**7.749%**	**7.541%**

In the FY 2022-23, ROE of the Company has declined in spite of the fact, the profit margin of the Company has increased from 8.587% to 9.424%. The reasons are – one, the activity level has come down as shown by the activity ratio – Assets Turnover Ratio and, second, the Company has reduced its leverage level and not taking any benefit from it.

4 (a) :

i) When EBIT is Rs. 5,000

Particulars	Plan A	Plan B
EPS	**Rs. 0.5**	**Rs. 0.5**

ii) When EBIT is Rs. 12,500

Particulars	Plan A	Plan B
EPS	**Rs. 4.25**	**Rs. 1.44**

The financial Plan A is highly levered with the debt equity (assuming no reserves) with the debt equity mix being 4:1.

At an earning level of Rs.5,000 before interest and tax it is at the break even and if the returns fall below this under financial Plan A the entity will start incurring losses thus Plan B is safer. The other hand Plan A being high levered when the earning before interest and tax are Rs.12,500 the EPS rises to Rs.4.25/share as against Rs.1.11/share for financial Plan B.

The current revenues and the earnings target should be analysed and the break even sales identified vis-à-vis fixed interest cost threshold. This will enable the enterprises to determine the right mix.

In case of revenues exceeding Rs.1,000 approx Rs.2,000 & above the Plan A is preferred. For other situation Plan B is thus preferred.

4 (b) :

(i) Capital fund = **Rs. 1,790 Crs.**

(ii) Capital adequacy ratio = **10.53 %**

(iii) Since the CAR = 10.53%, which is higher than 8%, it is inferred that the bank has maintained the regulatory capital and is said to have enough capital to cushion potential losses and protect depositor's money. This is further borne out by the fact that the ratio of tier I capital = Rs.1,250cr / Rs.17,000cr = 7.35% that is well above 4 to 4.5% norms.

The CAR that is capital to risk weighted assets ratio helps determine whether or not a bank has enough capital to bear any losses before becoming insolvent and losing depositor funds. It is important for a bank to monitor this ratio and adhere to regulatory requirements to avoid going insolvent and to safeguard clients as well as economy.

5 :

(i) & (ii)

To design a response to management **covering the viability of expansion** and the prospects of further growth the following needs to be considered and a conclusion arrived at and presented in a **logical manner.**

- The return of capital employed has fallen from 15% in 2021 to 12.9% in 2022. The reason lies may be sales to capital ratio or operating margin ratio which may have fallen during these years.
- The increase in capital employed has not been profitably utilized by the firm. The increased capital seems to have been blocked in current assets such as stock and debtors.
- The gross margin ratio decreased, it may be attributed to reduced selling price or granting discount in bulk orders.
- The operating ratio (expenses to sales) fell by 1% and this had a slight impact on net profit ratio which has increased by 0.1%.
- The short-term solvency of the company reflected by current ratio and quick ratio, is constant while deterioration in the stock turnover and debtor turnover ratio, this implies the company is holding stock for longer periods and allowing longer credit periods to customers.
- There is no threat to the long-term solvency of the company. It did not use any long-term debt in 2021. A debenture of Rs. 5,00,000 is taken and will affect the debt equity ratio and will decrease the profit with the amount of interest on debentures.
- The **decision of issuing further** 6% debentures of Rs.5,00,000 in 2023 to expand the **business is thus justified. As the company** is profit making, the post tax impact of interest on debentures assuming tax rate of 30% will be 6% (1-0.30) = 4.2% which is much lower than the return on capital of 12.9% in 2022 and industry return of 11% on capital employed. Thus advantage of leverage can be taken.
- The industry average return on capital employed is 11% therefore, the company is doing well and there are good and fair **chances of further growth for the firm** given the **recent expansion and future plans of the enterprise.**

SECTION – B

6 :

(i) (D)
(ii) (A)
(iii) (D)
(iv) (A)
(v) (A)

7 (a) :

Standard of value is nothing but a definition of the type of value being sought. According to the International glossary of business valuation terms, standard of value is “The identification of the type of value being utilised in a specific engagement; for example, fair market value, fair value, investment value.” This definition is inclusive but not exhaustive. Standard of value can be taken depending upon the purpose of the valuation. The standard of value depends upon time of engagement which gives the purpose of valuation. Five most common “standard of value” which are used in practice are:

- Fair market value.
- Investment value.
- Intrinsic value.
- Fair value, and
- Market value.

Choice of appropriate standard of value may be dictated by circumstances, objective, contract and operation of law or other factors. Pertinent questions to be answered before choosing an appropriate standard of value are:

- What is being valued?
- What is the purpose of valuation?
- Does the property or business changes hands or does controlling power to manage the asset is being handed over to the person paying for the value since such a transfer will be at a premium?
- Who are the buyer and seller?

Book Value: Book value is an accounting concept and implies historical cost of assets less outside liabilities. It is rarely used in valuation. The book value per share is simply the net worth of the company, which is equal to paid up equity capital plus reserves and surplus, divided by the number of outstanding equity shares. An allied and a more powerful criticism against the book value measure is that the historical balance sheet figure on which it is based are often very diverged from current economic value. Numbers in financial statements really reflect earning power and hence the book value per share cannot be regarded as a proxy for true investment value.

Liquidation Value: This method assesses the value of a business by gauging its value if it were to cease operations and sell its individual assets. Under this approach, the business owner would receive no compensation for business goodwill, brand value for the entity and its products, which are not recognised in financial statements, and other intangible assets such as the company’s name, location, customer base, or accumulated experience. This method is divided into forced liquidations say in case of bankruptcy and orderly liquidations. Values are typically figured higher in the latter instances.

Asset-based lenders and banks tend to favour this method, because they view the liquidation value of a company’s tangible assets to be the only valuable collateral to the loan. But it is unpopular with most business owners because of the lack of consideration given to goodwill, brand values and other intangible assets which are valuable assets.

7 (b) :

The current intrinsic value of the **share = Rs. 22**

The share is much overpriced and Mr. Tarak should wait for price to stabilize if he wants to hold it for long term as investment.

The expected market value after five years is likely to be = **Rs. 33.81**

Thus he will lose if he buys at Rs.50 per share for holding shares for long term. Therefore he should wait for price to fall to below Rs.30 per share, before he buys the shares.

8 (a) :

The market price of Company X share as per the dividend discount model with constant growth rate is **Rs. 525.**

8 (b) :
Value per share using free cash flow valuation method **= Rs. 42.17**

9 (a) :

Measurement of Brand valuation is needed for:
(i) Accounting purpose
(ii) Business valuation and transactional purposes
(iii) Brand management purposes

Various companies find brand valuation helpful for the followings:
(i) Making decisions on business investments;
(ii) Measuring the return on brand investment based on brand value to arrive at an ROI that can be directly compared with other investments;
(iii) Allocating marketing expenditures according to the benefit each business unit derives from the brand asset;
(iv) Organizing and optimizing the use of different brands in the business;
(v) Managing a portfolio of brands across a variety of markets;
(vi) Assessing fair transfer prices for the use of brands in subsidiary companies;
(vii) Determining brand royalty rates for optimal exploitation of the brand asset through licensing the brand to third parties;
(viii) Capitalizing brand assets on the balance sheet according to US GAAP, IAS in compliance with country specific accounting standards, whenever needed.

Steps in Valuation of Brand:
(i) **Market segmentation**: Brands influence customer choice, but the influence varies depending on the market in which brand operates. For valuation we need to split brand‘s market into non-overlapping and homogeneous groups of consumers according to applicable criteria such as product or service, distribution channels, consumption patterns, purchase sophistication, geography existing and new customers and so on. The brand is valued in each segment and the sum of the segments constitutes the total value of the brand.
(ii) **Financial analysis**: Identify and forecast revenue and earnings from intangibles generated by the brand for each of the distinct segments determined in step-1. Intangibles earnings are defined as brand revenue less operating costs, applicable taxes and a charge for the capital employed. The concept is similar to the economic profit.
(iii) **Demand analysis**: Assess the role that the brand plays in driving demand for products and services in the markets in which it operates and determine what proportion of intangible earning is attributable to the brand measured by an indicator referred to as the “role of branding index”. The role of branding index represents the percentage of intangible earnings that are generated by the brand. Brand earnings are calculated by multiplying the role of branding index by intangible earnings.

(iv) **Competitive benchmarking**: Determine the competitive strengths and weaknesses of the brand to derive the specific brand discount rate that reflects the risk profile of its expected future earnings. This comprises extensive competitive benchmarking and a structured evaluation of the brand's market, stability, leadership position, growth trend, support geographic footprint and legal protect ability.

(v) **Brand value measurement**: Brand value is the net present value (NPV) of the forecast brand earnings, discounted by the brand discount rate. The NPV calculation comprises both the for ecastperiod and the period beyond, reflecting the ability of brands to continue generating future earnings.

This computation is useful for brand value modelling in a wide range of situations, viz.,

≈ Predicting the effect of marketing and investment strategies;
≈ Determining and assessing communication budgets;
≈ Calculating the return on brand investment;
≈ Focus it as an icon of quality and customer loyalty;
≈ Assessing opportunities in new or unexpected markets; and
≈ Tracking brand value management and its consequential effect on business value and overall corporate image

9 (b) :

(Rs. in crores)

Goodwill	**494.50**
Value of the Business	**4,985.45**

10:

EPS and Market price per share (MPS) under 3 different acquisition plans

	Plan 1	**Plan 2**	**Plan 3**
EPS	2.2	2.146	2.095
Market Price per share	27.5	26.83	26.19

The strategy should to persuade shareholders of Nikas Ltd to accept Plan 1 that is Vikas Ltd to pay Rs.12.50 per share for each share of Nikas Ltd. This Plan 1 should be followed because it gives the highest market price of share post merger, from the point of view of Vikas Ltd.

The points for persuasion of shareholders of Nikas Ltd are:

(a) Plan 1 provides highest cash payout of Rs.12.50 per share of Nikas Ltd (Plan 2 is Rs.6.25 per share and Plan 3 is nil)

(b) Shareholders of Nikas Ltd are free to invest their monies in their own ventures and will not have to be minority shareholders in another company.

(c) From perspective of Vikas Ltd too it gets full control of the merged company, hence Plan 1 is better for both parties.