FINAL EXAMINATION

GROUP - IV

(SYLLABUS 2016)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER – 2019

Paper - 20 : 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.
This paper has been divided into two Sections, viz, Section A and Section B.

Section-A

Strategic Performance Management

(50 Marks)

Answer Question No. 1 *which is compulsory and* any two *from the rest of this Section.*

1. Choose the correct option from amongst the four alternatives given: 2×5=10

(i) Performance management creates a direct link between

(A) employee performance and employee's goal.

(B) organizational performance and employee's goal.

(C) employee performance and organizational goals.

(D) organizational goals and employee's goals.

(ii) If productivity growth of an organization is ________ that of its competitors, that firm performs better and is considered to be more efficient.

(A) higher than

(B) lower than

(C) stable

(D) fluctuating in both higher and lower sides

(iii) 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

(iv) The components of the Shewhart Cycle or PDCA are

(A) Plan-Do-Check-Act

(B) Plan-Deline-Check-Act

(C) Plan-Do-Control-Act

(D) Program-Do-Check-Act

(v) Which out of the following financial ratios is not in the Altman Model: Z-Score?

(A) Market Value to Book Value of equity shares

(B) Working Capital to Total Assets

(C) Retained Earnings to Total Assets

(D) Sales to Total Assets

Answer:

(i) (C) Performance management creates a direct link between employee performance and organizational goals.

(ii) (A) If productivity growth of an organization is **higher than** that of its competitors, that firm performs better and is considered to be more efficient.

(iii) (A) Supply Chain Management encompasses the planning and management of all activities involved in sourcing, procurement, conversion and logistics management activities.

(iv) (A) The components of Shewhart Cycle or PDCA or Deming Cycle or Deming wheel are Plan-Do-Check — Act.

(v) (A) Market Value to Book Value of equity shares is not the financial ratio included in the Altman Model: Z-Score.

2. (a) (i) What is Customer Relationship Management (CRM)? **3**

(ii) State the advantages and benefits of Customer Relationship Management application. **7**

(b) (i) What are the characteristics of enterprise resource planning (ERP)? **4**

(ii) What are the reasons for the failure of ERP? **6**

Answer:

2. (a) (i)

Customer Relationship Management (CRM) is a business strategy comprised to process, organizational and technical change whereby a company better manage its enterprise around its customer behavours. It entails acquiring and deploying knowledge about customers and using this information across the various customers touch points to increase revenue and achieve cost reduction through operational efficiencies.

The adoption of CRM is being fuelled by recognition that long-term relationships with customers are one of the most important assets of an organization. CRM entails all aspects of interaction that a company has with its customer, whether it is sales or service related.

CRM is often thought of as business strategy that enables business to:

Understand the customer

Retain customers through better customer experience

Attract new customer

Win new clients and contracts

Increase profitability

Decrease customer management costs.

2. (a) (ii)

Advantages and benefits of CRM:

Certainly a benefit for each company is to achieve better economic results thanks to achieving higher value from every interaction with a customer. Competition is very sharp in current market. Companies must take care of a customer in every area of their specialization by using various communication channels. Customer expects perfect services whether he calls a help line, asks a dealer, browses a web site or personally visits a store. It is necessary to assure him in a feeling that he communicates with the same company whatever form of communication, time or place he chooses. According to Matusinska the basic advantages and benefits of CRM are these:

- satisfied customer does not consider leaving
- product development can be defined according to current customer needs
- a rapid increase in quality of products and services
- the ability to sell more products
- optimization of communication costs
- proper selection of marketing tools (communication)
- trouble-free run of business processes
- greater number of individual contacts with customers
- more time for customer
- differentiation from competition

- real time access to information
- Under estimated levels of change management
- Improper communication
- Insufficient end user training
- Failure in gap analysis
- Failure to identify future business needs
- Technological obsolescence
- Failure to make available user-friendly checklist/guidelines.
- fast and reliable predictions
- communication between marketing, sales and services
- increase in effectiveness of teamwork
- increase in staff motivation

Answer:

2. (b) (i)

The characteristics of Enterprise Resource Planning (ERP) are:

ERP refers top techniques and concepts for integrated management of business as a whole from the view point of the effective use of management resources to improve the efficiency of enterprise management. ERP provides integrated business software modules to support functional units of an enterprise. An ideal ERP system should have following characteristics;

1. **Flexibility:** An ERP system must be flexible enough to respond fast to the changing needs of the organization. The client server technology enables ERP to run across various databases at the back end using open database connectivity.
2. **Modular and open:** ERP system has the open architecture i.e. any modules can be interfaced or dethatched without affecting the rest of the modules. It should support multiple hardware platforms as well as third party add-on solutions.
3. **Beyond the company:** It is confined to the organizational boundaries rather it is extended to the external business entities connected to the organization with online connectivity.
4. **Best business practice:** It has inbuilt best business practices applicable worldwide and imposes its own strategies and logics over existing culture and processes of organization.

Answer:

2. (b) (ii)

Reasons for failure of ERP:

An organization cannot reap desired benefits from the ERP system under the following circumstances:

- Lack of effective project management

- Inability to resolve issues and make decisions in timely manner
- Resources not available when needed
- Perceived or real lack of executive support
- Software fails to meet business needs

3. (a) A departmental store of Mumbai conducted a study of the demand for men's ties. It found that the average daily demand (D) in terms of price (P) is given by the equation D=120-5P.

You are required to ascertain—

(i) How many ties per day can the store expect to sell at a price of ₹ 20 per tie?

(ii) If the store wants to sell 40 ties per day what price should it charge?

(iii) What is the highest price anyone would be willing to pay? 3+3+4=10

(b) The following financial data related to the Balance Sheet of Vedisha Ltd. a public listed large manufacturing company as at March 31, 2019, has been extracted from the Annual Report 2018-19:

Assets	(Amount in ₹ lakh)
Non-Current Assets	
(a) Property, Plant and Equipment	1,620
(b) Other Assets	140
Total Non-Current Assets	**1,760**
Current Assets	
(a) Inventories	305
(b) Financial Assets	
(i) Investment	250
(ii) Trade Receivables	245
(iii) Cash and Cash Equivalents	125
(c) Other Assets	80
Total Current Assets	**1,005**
Total Assets	**2,765**
1. Equity And Liabilities	
Shareholders Fund:	
(a) Equity Share Capital (₹ 10 each)	500
(b) Reserve and Surplus	1,250
Total Equity	**1,750**
2. Non-Current Liabilities	
(a) Financial Liabilities	
- Borrowings	600

(b) Provisions **(c) Other liabilities**	**10** **80**
Total Non-Current Liabilities	**690**
3. Current Liabilities **(a) Financial Liabilities** **(i) Borrowings** **(ii) Trade Payables** **(b) Provisions** **(c) Other liabilities**	 **—** **195** **10** **120**
Total Current Liabilities	**325**
Total Equity and Liabilities	**2,765**

Additional Information:

(i) Net sales for 2018-19 were ₹ 3,050 lakh.

(ii) Operating profit of the company for the year was ₹ 585 lakh.

(iii) Market value of each equity share is ₹ 16 on the stock exchange.

Using the above information provided and discriminant function developed by Altman, you are required to calculate Z-Score of Vedisha Ltd. and comment on the financial condition of the company. 10

Answer:

3. (a)

(i) D = 120 - 5P

D = 120 -(5 × 20)

120 -100 = 20 ties are expected to be sold per day at price of ₹ 20 per tie

(ii) D = 120 - 5P

40 = 120 - 5P

5P = 120 - 40

5P = 80

P = 16 per tie if it wants to sell 40 price per day

(iii) D = 120 - 5P

1 = 120 - 5P

5P = 120 - 1

5P = 119

P = ₹ 23.80 per tie in the highest price

3. (b)

As per Z-score model of Altman (1968) which is developed for public listed large manufacturing companies we have

$Z = 1.2x_1 + 1.4x_2 + 3.3x_3 + 0.6x_4 + 1.0x_5$

Here, the five variables are as follows: (₹ In lakh)

X_1 = Working Capital to Total assets = $\left(\frac{680}{2765}\right)$ = 0.246

X_2 = Retained earnings to total assets = $\left(\frac{1250}{2765}\right)$ = 0.452

X_3 = EBIT to Total assets = $\left(\frac{585}{2765}\right)$ = 0.212

X_4 = Market Value of Equity to Book Value of Total debts = $\frac{800}{1050}$ = 0.788

X_5 = Sales to total assets = $\left(\frac{3050}{2765}\right)$ = 1.103 times

Hence, **Z Score** = (1.2 x 0.246) + (1.40 x 0.452) + (3.3 x 0.212) + (0.6 x 0.788) + (1×1.103)

= 0.2952 + 0.6328 + 0.6996 + 0.4728 + 1.103 = 3.2034

Note:

(Amount in ₹ Lakh)

1.	Working Capital: Current Assets -Current Liabilities (1005-325)	=	680
2.	Total Assets = (1760 + 1005)	=	2765
3.	Retained Earnings	=	1250
4.	EBIT (Operating Income)	=	585
5.	Market Value of Equity $\left(\frac{500}{10} \times 16\right)$	=	800
6.	Total Debt = (690 + 325)	=	1015
7.	Sales	=	3050

Comment:

As the calculated value of **Z- Score (3.2034)** is much higher than 2.99, it can be strongly predicated that the company (Vedisha Ltd.) is a non-bankrupt company (i.e. non-failed company).

4. (a) (i) Differentiate between systematic risk and unsystematic risk.

(ii) Discuss the need for implementation of enterprise risk management.

(iii) "Do you believe that the Government of India bonds do not have any kind of risk for the banking sector in India?" Support your answer with suitable reasoning. 6+3+3=12

(b) "Financial performance analysis can be classified into different categories on the basis of material used and modus operandi" — Write about the various types of financial performance analysis in this context. 8

Answer:

4. (a) (i)

Systematic risk refers to that part of total risk which causes the movement in individual stock price due to changes in general stock market index. Systematic risk arises out of external and uncontrollable factors. The price of individual security reflects the fluctuations and changes of general market. It refers to that portion of variation in return caused by factors that affect the price of all securities. The effect in systematic risk causes the prices of all individual shares/bonds to move in the same direction. This movement is generally due to the response to economic, social and political changes. The systematic risk cannot be avoided It relates to economic trends which affect the whole market. The systematic risk cannot be eliminated by diversification of portfolio because every share is influenced by the general market trend.

Unsystematic risk is that portion of total risk which results from known and controllable factors. It refers to that portion of the risk which is caused due to factors unique or related to a firm or industry. The unsystematic risk is the change in the price of stocks due to the factors which are particular to the stock. For example, if excise duty or customs duty on raw materials of a product increases, the price of related industry's stock declines. The unsystematic risk can be eliminated or reduced by diversification of portfolio.

4. (a) (ii)

Need for implementation of ERM

ERM needs to be implemented for the following reasons:

- Reduce unacceptable performance variability.
- Align and integrate varying views of risk management
- Build confidence of investment community and stakeholders
- Enhance corporate governance
- Successfully respond to a changing business environment
- Align strategy and corporate culture.

4. (a) (iii)

Government of India bonds do not have credit risk or default risk as the sovereign bonds in domestic currency do not have any default risk. However, banks trade in government bonds in the bond market and hence, they face interest rate risk in such bonds. That is to say - Government of India bonds may not have credit risk but they have interest rate risk as market interest rate changes in the market and consequently, the prices of bonds changes causing a risk to the banks. Therefore, it is not correct to say that the Government of India bonds do not have any kind of risk.

Answer:

4. (b)

Financial performance analysis can be classified into different categories on the basis of material used and modes operandi as under:

A. Material used: On the basis of material used financial performance can be analyzed in following two ways:

1. External analysis: This analysis is undertaken by the outsiders of the business namely investors, credit agencies, government agencies, and other creditors who have no access to the internal records of the company. They mainly use published financial statements for the analysis and as it serves limited purposes.

2. Internal analysis: This analysis is undertaken by the persons namely executives and employees of the organization or by the officers appointed by government or court who have access to the books of account and other information related to the business.

B. Modus operandi: On the basis of modus operandi financial performance can be analyze in the following two ways:

1. Horizontal Analysis: In this type of analysis financial statements for a number of years are reviewed and analyzed. The current year's figures are compared with the standard or base year and changes are shown usually in the form of percentage. This analysis helps the management to have an insight into levels and areas of strength and weaknesses. This analysis is also called Dynamic Analysis as it based on data from various years.

2. Vertical Analysis: In this type of Analysis study is made of quantitative relationship of the various items of financial statements a particular date. This analysis is useful in comparing the performance of several companies in the same group, or divisions or departments in the same company. This analysis is not much helpful in proper analysis of firm's financial position because it depends on the data for one period. This analysis is also called Static Analysis as it based on data from one date or for one accounting period.

Section-B

Business Valuation

(50 Marks)

Answer* Question No. 5 *which is compulsory and any two from the rest of this Section.

5. Choose the correct option from amongst the four alternatives given, with justification/workings. 1 mark will be for the correct choice and 1 mark will be for the justification/workings: 2×5=10

(i) ANINY LTD. earned free cash flow to Equity shareholders during the financial year ended-2019 at ₹ 5 lakh. If its cost of equity is 12% and free cash flow to Equity (FCFE) is expected to grow forever at 10%, what will be value of ANINY LTD. (using FCFE valuation approach)?

(A) ₹ 450 lakh

(B) ₹ 300 lakh

(C) ₹ 275 lakh

(D) None of the above

(ii) Smith Ltd. has announced issue of warrants on 1:1 basis for its equity shareholders. The warrants are convertible at an exercise price of ₹15. Warrants are detachable and trading at ₹ 7. What is the minimum price of the warrant if the current price of the stock is ₹ 20?

(A) ₹ 4

(B) ₹ 5

(C) ₹7

(D) ₹ 15

(iii) The value of Alpha Ltd. and Beta Ltd. are ₹ 50 lakh and ₹ 25 lakh respectively. On merger their combined value ₹ 94 lakh. If Beta Ltd. receives premium on merger ₹15 lakh, what will be the synergy gain for merger?

(A) ₹ 19 lakh

(B) ₹ 24 lakh

(C) ₹ 34 lakh

(D) None of the above

(iv) A company with PAT of ₹ 60 Crores, Tax Rate 30% plus a cess of 3%, Return on Equity is 20%, Other Equity ₹ 225 Crores, PAT of the Company is growing by 8% per year and equity share with a par value of ₹ 10 will have EPS of

(A) ₹ 2

(B) ₹ 8

(C) ₹ 10

(D) Insufficient information

(v) A Limited is considering to acquire B Limited through all shares deal. Relevant information about these companies are given below;

Particulars	A Limited	B Limited
Present Earnings- (₹ in crores)	₹ 7.50	₹ 2.50
No. of Equity Shares (in crores)	4	2
Price/Earnings Ratio	10	9

Given the above information, the exchange ratio based on the market price will be

(A) 0.60

(B) 0.67

(C) 0.93

(D) 1.67

Answer:

(i) (C) ₹ 275 lakh

According to FCFE Valuation Approach:

$V_0 = (FCFE_i)/(K_e - g)$

$= (5 \times 1.10)/(0.12 - 0.10) = \frac{5.5}{0.02} =$ ₹ 275 lakh

(ii) (B) ₹ 5

Minimum Price Warrant of Smith Ltd.:

(Current Stock Price-Exercise price of Warrant) x (Exercise Ratio):

= ₹ (20 -15) x 1 = ₹ 5

(iii) (A) ₹ 19 lakh

Synergy gain for Merger: Combined Value-Value of Merging Companies

= ₹ [(94) - (50 + 25)] = ₹19 lakh

(Premium on merger is irrelevant).

(iv) (B) (₹ 8)

PAT	₹ 60
ROE	20%
Total Equity (PAT/ROE)	₹ 300
Other Equity	₹ 225
Share Capital (Total Equity-Other Equity)	₹ 75
No. of Shares (Share Capital/Par Value of the share) (crore)	7.5
EPS = PAT ÷ No. of share = $\frac{60}{7.5}$ = EPS	₹ 8

(v) (A)

Particulars	**A Limited**	**B Limited**
Present Earnings (₹ in crores)	₹ 7.50	₹ 2.50
No. of Equity Shares (in crores)	4	2
Price/Earnings Ratio	10	9
EPS	₹ 1.875	₹ 1.250
Market Price	₹ 18.75	₹ 11.25
Exchange Ratio (11.25/18.75)	**0.60**	

6. (a) ST Ltd. and BE Ltd. are in the same Industry. The former is in negotiation for acquisition of the latter. Important information about the two companies as per their latest financial statements is given below:

	ST Ltd.	**BE Ltd.**
₹ 10 equity shares outstanding	**12 lakh**	**6 lakh**
Debt: **10% Debentures (₹ lakhs)**	**580**	**-**
12.5% Institutional loan (₹ lakhs)	**-**	**240**
Earnings before interest, depreciation and tax (EBIDAT) (₹ lakhs)	**400.86**	**115.71**
Market price/share (₹)	**220.00**	**110.00**

ST Ltd. plans to offer a price for BE Ltd., business as a whole which will be 7 times EBIDAT reduced by outstanding debt, to be discharged by own shares at market price.

BE Ltd. is planning to seek one share in ST Ltd. for every 2 shares in BE Ltd. based on the market prices. Tax rate for the two companies may be assumed as 30%.

Required:

Calculate and show the following under both alternatives — ST Ltd.'s offer and BE Ltd.'s plan: 12

(i) Net consideration payable

(ii) No. of shares to be issued by ST Ltd.

(iii) EPS of ST Ltd. after acquisition

(iv) Expected market price per share of ST Ltd. after acquisition.

(v) State briefly the advantages to ST Ltd. from the acquisition.

Calculations (except EPS) may be rounded off to 2 decimals in lakhs.

(b) Calculate the value of equity share of Rama & Company Ltd. which is listed on stock exchange, from the following information: 8

Equity share capital (₹ 20 each) ₹ 50,00,000

Reserves and Surplus ₹ 5,00,000

15% Secured loans ₹ 25,00,000

12.5% Unsecured loans ₹ 10,00,000

Fixed Assets ₹ 30,00,000

Investment ₹ 5,00,000

Operating Profit ₹ 25,00,000

Corporate Tax Rate 25% (including all)

Price Earnings Ratio 12.5

Support your answer with complete workings.

Answer:

6. (a)

As per ST Ltd's offer	₹ in lakhs
(i) **Net Consideration payable:**	
7 times EBIDAT i.e. 7 x ₹115.71 lakhs	809.97
Less: Debt	240.00
	569.97
(ii) **No. of shares to be issued by ST Ltd.:**	
₹ 569.97 lakh/ ₹ 220 (rounded off) (Nos.)	259077

(iii) **EPS of ST Ltd. after acquisition:**

Total EBIDAT after acquisition	
Total EBIDAT (₹ 400.86 lakh + ₹ 115.71 lakh)	516.57
Less: Interest (₹ 58 + 30 lakh)	88.00
	428.57
Less: 30% Tax	128.57
Total earnings (NPAT)	**300.00**
Total No. of shares outstanding	14.59077 lakh
(12 lakh + 2.59077 lakh)	
EPS (₹ 300 lakh/14.59077 lakh)	₹ 20.56

(iv) **Expected Market Price:**

	₹ in lakhs
Pre-acquisition multiple:	
EBIDTA	400.86
Less: Interest ($580 \times \frac{10}{100}$)	58.00
	342.86
Less: 30% Tax	102.86
	240.00
No. of shares (lakhs)	12.00
EPS (240 ÷ 12)	₹ 20.00
Hence, PE Multiple (220 ÷ 20)	11
Expected market price after acquisition (₹20.56 x 11)	₹ 226.16

As per BE Ltd.'s Plan:

(i) **Net consideration payable:** ₹ in lakhs

3 lakhs shares x ₹ 220	660

(ii) **No. of shares to be issued by ST Ltd.**

(₹6 lakhs ÷ 2) × 1	3 lakh

(iii) **EPS of ST Ltd. after acquisition**

NPAT (as per earlier calculations)	300.000
Total no. of shares outstanding (12 lakhs + 3 lakhs)	15 lakh
Earnings per share (EPS) ₹300 lakh/15 lakh	₹ 20.000

(iv) **Expected Market Price (₹20 x 11)**	₹ 220.00

(v) **Advantage of Acquisition ST Ltd.**

Since the two companies are in the same industry, the following advantage could accrue.

Synergy, cost reduction and operating efficiency

Better market share

Avoidance of competition

6. (b)

In the given situation, the value of the share can be ascertained on the basis of earnings of the firm and price-earnings multiple as follows:

Value= EPS × P/E ratio

The P/E ratio is given and the EPS may be ascertained as follows:

EBIT (Operating profit)		₹ 25,00,000
Less: Interest on secured loans (15%)	₹ 3,75,000	
Interest on Unsecured Loans(12.5%)	₹ 1,25,000	5,00,000
EBT		20,00,000
Less: Tax 25%		5,00,000
EAT		15,00,000

Number of equity shares (₹ 50 lakh/20)= 2,50,000

EPS = 15,00,000/2,50,000

= ₹ 6

Value of share = 6 ×12.5

= ₹ 75

7. (a) Blooming Company Limited wants to takeover Gloomy Company Limited and their summarized financial statements are given below:

Balance Sheet as on March 31, 2019

(₹ in Crores)	Blooming Company Limited	Gloomy Company Limited
Assets: **Non-Current asssets — Property, Plant and Equipment and Financial Assets**	**905.62**	**264.37**
Current Assets — Inventories, Receivables and Cash and Cash equivalents	**681.88**	**623.13**
Total Assets	**1,587.50**	**887.50**
Equity and Liabilities :		

Equity Share Capital - ₹ 10 each	312.50	218.75
Other Equity	593.75	268.75
Non-Current Liabilities	410.63	236.88
Current Liabilities and Provisions	270.62	163.12
Total Equity and Liabilities	1,587.50	887.50

Statement of Profit and Loss for the year ending on March 31,2019

(₹ in Crores)	Blooming Company Limited	Gloomy Company Limited
Revenue:		
Sales	1,708.86	1,107.59
Other Income	15.82	10.76
Total	1,724.68	1,118.35
Less :		
Cost of Goods Sold	768.99	509.49
Administrative and other related expenses	256.33	132.91
Selling and Distribution Expenses	119.62	83.04
	1,144.94	725.44
Profit Before Interest and Tax	579.74	392.91
Less: Interest	24.00	32.00
Profit Before Tax	555.74	360.91
Less: Tax	185.25	120.30
Profit After tax	370.49	240.61

Additional Information:

		Blooming Company Limited	Gloomy Company Limited
(i)	Proportion of Floating Shares in Stock Market	75%	80%
(ii)	Market Price Per Share	₹ 45	₹ 40

I. Using the above information, what should be the share exchange ratio to be offered to the shareholders of Gloomy Company Limited by Blooming Company Limited based on:

(a) Book Value Per Share

(b) Earnings Per Share (EPS)

(c) Market Price Per Share

II. Assuming that there are no synergy gains, then determine the EPS after merger if the exchange ratio is one which is the most preferred out of the three as in (I) above by Gloomy Company Limited. **8+4=12**

(b) AB Ltd. and VZ Ltd. are contemplating a merger deal in which AB Ltd. will acquire VZ Ltd. The relevant information about the companies are given as follows:

	AB Ltd.	VZ Ltd.
Total earning (E) (in ₹ millions)	70	28
Number of outstanding shares (S) (in million)	20	10
Earnings Per Share (EPS) (₹)	3.50	2.80
Price Earning Ratio (P/E)	12	10
Market Price Per Share (MPS) (₹)	42	28

Required:

(i) What is the maximum exchange ratio acceptable to the shareholders of AB Ltd. if the P/E ratio of the combined firm is 12 and there is no Synergy Gain?

(ii) What is the minimum exchange ratio acceptable to the shareholders of VZ Ltd. if the P/E ratio of the combined firm is 11 and there is a Synergy benefit of 5 per cent? **4+4=8**

Answer:

7. (a)

	Blooming Company Limited	Gloomy Company Limited
Calculation of Net Worth:		
Equity Share Capital - ₹ 10 each	₹ 312.50	₹ 218.75
Other Equity	₹ 93.75	₹ 268.75
Total Net Worth	**₹ 906.25**	**₹ 487.50**
No. of Shares	31.25	21.875
Book Value per Share	**₹ 29.00**	**₹ 22.29**

Exchange Ratio is 22.29:29.00 or 0.7685:1; that is, for one share held in Gloomy Company Limited, shareholders will get 0.7685 shares of Blooming Company Limited.

	Blooming Company Limited	Gloomy Company Limited
Calculation of EPS:		
PAT-Profit After Tax	₹ 370.49	₹ 240.61
No. of Shares	31.25	21.875
EPS	**₹ 11.86**	**₹ 11.00**

Exchange Ratio is 11.00:11.86; or 11/ 11.86 = 0.9277; that is, for one share held in Gloomy Company Limited, shareholders will get 0.9277 shares of Blooming Company Limited.

	Blooming Company Limited	Gloomy Company Limited
Market Price Per Share	₹ 45.00	₹ 40.00

Exchange Ratio is 40:45; that is, for one share held in Gloomy Company Limited, shareholders will get 0.8889 shares of Blooming Company Limited.

7. (a) (ii)

Since the shareholders of Gloomy Company Limited are getting maximum number of shares for one share held - 0.9277 when the Exchange Ratio is fixed as per the EPS, Shareholders of Gloomy Company Limited will prefer fixing of the Exchange Ratio as per EPS.

Total PAT after Merger (370.49 + 240.61)	₹ 611.10
Total No. of Shares of Blooming Company Limited after merger assuming that Exchange Ratio is determined as per EPS (31.25 + 0.9277 × 21.875)	51.5434
EPS after Merger will be	**₹ 11.86**

7. (b)

(i) Maximum exchange ratio acceptable to the shareholders of **AB Ltd.:**

$MPS_A = EPS_{A+V} \times P/E_{A+V}$

$42 = \frac{70+28}{20+10xER} \times 12$

Or, 42(20 + 10 x ER) = 1176

Or, 840 + 420 ER = 1176

420 ER = 1176 – 840 = 336

Hence, ER = 336/420 = 0.80

Maximum Exchange Ratio = 0.80

No. of Shares= 0.80 ×10 = 8 Millions

(ii) Minimum Exchange ratio acceptable to the Shareholders of VZ Ltd.

$MPS_V = EPS_{A+V} \times P/E \times ER$

$$28 = \frac{(70+28)\times 1.05}{20+10ER} \times 11\ ER$$

Or, 560 + 280 ER = 1131.9 ER

Or, 851.9 ER = 560

Hence, ER = $\frac{560}{851.9}$ = 0.65735

Minimum Exchange Ratio = 0.65735

No. of Shares = 10 x 0.6574 = 6.5735 Millions

Alternative

(i) Maximum Exchange Ratio accepted to the Shareholders of AB **Ltd.:**

$$ER_A = -\frac{S_A}{S_V} + \frac{PE_{AV}}{MPS_A}\frac{(E_{A+V})}{S_V}$$

$$= -\frac{20}{10} + \frac{12\times 98}{42\times 10} = -2 + \frac{1176}{420}$$

= - 2 + 2.80 = 0.80

Maximum exchange ratio = 0.80

No. of shares = 10 x 0.80 = 8 Millions

(ii) Minimum Exchange Ratio acceptable to the Shareholders of VZ Ltd.

$$ER_V = \frac{MPS_V\ S_A}{(PE_{AV})(E_{AV}) - MPS_V\ S_V}$$

$$= \frac{28\times 20}{11\times(98\times 1.05) - 28\times 10} = \frac{560}{1131.9 - 280}$$

$$= \frac{560}{851.9} = 0.65735$$

Minimum exchange ratio is 0.65735

No. of shares = 10 x 0.65735 = 6.5735 millions

8. (a) The following information has been extracted from the Annual Report 2018-19 of Red Shine Limited:

Balance Sheet of Red Shine Limited as at March 31,2019 (₹ in Crores)

Particulars	2019
ASSETS Non-Current Assets:	
Property, Plant and Equipment Intangible Assets Financial Assets-Investment Other Non-Current Assets	250.00 25.00 75.00 5.00
Total Non-Current Assets	355.00
Current Assets: Inventories Financial Assets: Trade Receivables Cash and Cash equivalents Other Current Assets	 60.00 85.00 35.00 10.00
Total Current Assets	190.00
TOTAL ASSETS	545.00
EQUITY AND LIABILITIES Equity:	
Equity Share Capital (Face Value- ₹ 10 per share) Other Equity	50.00 325.00
Total Equity	375.00
Non-Current Liabilities: 12% Redeemable Preference Shares Financial Liabilities-Borrowings	 40.00 75.00
Total Non-Current Liabilities	115.00
Current Liabilities Financial Liabilities: Trade Payables Other Financial Liabilities Provisions Other Current Liabilities	 25.00 15.00 9.00 6.00
Total Current Liabilities	55.00
TOTAL EQUITY AND LIABILITIES	545.00

Statement of Profit and Loss of Red Shine Limited for the Year ended March 31,2019

(₹ in Crores)

Particulars	2019
Revenue from Operations Interest and Dividend Income on Non-Current Financial Investments	1,890.00 250.00
Total Income	2,140.00
Cost of Goods Sold Other Operating Expenses	1,475.00 175.00
Total Operating Expenses	1,650.00
Profit before Interest, Exceptional Items and Tax *Less:* Interest	490.00 9.00
Profit before Exceptional Items and Tax	481.00
Less: Exceptional Items	35.00
Profit Before Tax	446.00
Tax @30%	133.80
Profit After Tax	312.20

From the above information, determine the Economic Value Added (EVA) of Red Shine
Limited for the FY 2018-19 if its Weighted Average Cost of Capital is 15%. 10

(b) The following information is provided related to the acquiring Firm Mark Limited and the target Firm Mask Limited:

	Firm Mark Ltd.	Firm Mask Ltd.
Earnings after tax (₹)	2,000 lakhs	400 lakhs
Number of shares outstanding	200 lakhs	100 lakhs
P/E ratio (Times)	10	5

You are required to give the answers of the following: 10

(i) What is the Swap ratio based on current market prices?

(ii) What is the EPS of Mark Ltd. after acquisition?

(iii) What is the expected market price per share of Mark Ltd. after acquisition assuming P/E ratio of Mark Ltd. remains unchanged?

(iv) Determine the market value of the merged firm.

(v) Calculate gain/loss for shareholders of the two independent companies after acquisition.

Answer:

8. (a)

CALCULATION OF NOPAT:

Profit before Exceptional Items and Tax	₹ 481.00
+ Interest	₹ 9.00
- Non-Operating Income	(₹ 250.00)
Operating EBIT	₹ 240.00
Less: Tax @ 30%	₹ 72.00
NOPAT	**₹ 168.00**

CALCULATION OF OPERATING CAPITAL: ₹ in crore

Equity Share Capital	₹ 50.00
Other Equity	₹ 325.00
12% Redeemable Preference Shares	₹ 40.00
Financial Liabilities - Borrowings	₹ 75.00
Total	**₹ 490.00**
Less: Non-Operating Assets	
Financial Assets - Investment	₹ 75.00
Operating Capital	**₹ 415.00**

RETURN ON OPERATING CAPITAL EMPLOYED	40.48%
EVA (Return on Operating Capital Employed - WACC) x **Operating Capital**	**₹ 105.74**

Note: EVA (40.48 – 15)% × 415 = ₹ 105.74 crore

8. (b)

	Mark Ltd.	Mask Ltd.
EPS		
	₹ 2,000 lakhs/200 lakhs	₹ 400 lakhs/100 lakhs
	₹ 10	₹4
Market price	₹ 10 x 10 = ₹ 100	₹ 4 x 5 = ₹ 20

(i) The swap ratio based on current market price is :

₹ 20/₹ 100 = 0.2 or 1 share of Mark Ltd for 5 shares of Mask Ltd.

Number of shares to be issued = ₹ 100 lakh × 0.2 = ₹ 20 lakhs

(ii) EPS after merger:

₹ (2000 lakhs + ₹ 400 lakhs) /(200 lakhs + 20 lakhs)

= ₹ 10.91

(iii) Expected market price after merger assuming P/E 10 times:

₹ 10.91 × 10 = ₹ 109.10

(iv) Market value of merged firm:

= ₹ 109.10 × 220 lakhs shares

= ₹ 240.02 crores

(v) Gain/loss from merger:

Difference between post merger market value and pre merger market value:

₹ 240.02 minus ₹ 220.00 = ₹ 20.02 (figures are in crores) Gain from merger.

Appropriation of gains from the merger among shareholders: (in crores)

	Mark Ltd.	**Mask Ltd.**
Post merger value	218.20	21.82
Less: Pre merger market value	200.00	20.00
Gain to shareholders	₹ 18.20	₹ 1.82