FINAL EXAMINATION
Syllabus 2016

Paper 20: STRATEGIC PERFORMANCE MANAGEMENT AND BUSINESS VALUATION (SPBV)

Time Allowed: 3 Hours **Full Marks: 100**

There are Sections A, B, C and D to be answered subject to instructions given against each.

Section A **You are required to answer all the questions. Each question carries 1 mark.** **Instructions: Each question is followed by 4 Answer choices and only one is correct. You are required to select the choice which according to you represents the correct answer.**					**20 X 1 = 20 Marks**
1.					
	a.	Which of the following is not an accounting technique to analyze financial performance?			
		(i)	Ratio analysis		
		(ii)	Time series analysis.	A	
		(iii)	Trend analysis		
		(iv)	Common-size financial analysis		
	b.	Which of the following is not a component of supply chain management?			
		(i)	Plan		
		(ii)	Organize	A	
		(iii)	Deliver		
		(iv)	Return		
	c.	The Balanced Scorecard is about ____________ .			
		(i)	Creating the Vision, Communicating and Linking, Business Planning and Target Setting, Feedback and Learning;		
		(ii)	Translating the Vision, Communicating and Linking, Business Planning and Target Setting, Feedback and Learning;	A	
		(iii)	Translating the Vision, Coordinating, Business Planning and Target Setting, Feedback and Learning;		
		(iv)	Creating the Vision, Communicating and Linking, Business Planning and Target Setting, Feedback and Learning.		
	d.	Which of the following is not a model associated with Duopoly?			
		(i)	Dual model	A	
		(ii)	Cournot's solution		
		(iii)	Edgeworth model		
		(iv)	Chamberlin's model		
	e.	Which of the following is not true for a perfectly competitive firm?			
		(i)	The firm can earn only normal profit in the short run.	A	
		(ii)	The firm can earn super normal profit in the short run		
		(iii)	The firm can suffer from a loss in the short run.		
		(iv)	The firm can earn only normal profit in the long run.		

	f.	The six sigma DMAIC process consist of ________________________ .			
		(i)	define, measure, analyze, improve, control;	A	
		(ii)	define, manage, analyze, improve, control;		
		(iii)	define, measure, analyze, improve, co-ordination;		
		(iv)	deliver, measure, analyze, improve, control.		
	g.	Which of the following risks can be reduced by diversification?			
		(i)	Purchasing power risk		
		(ii)	Interest rate risk		
		(iii)	Firm specific risk	A	
		(iv)	Economy specific risk		
	h.	Which of the following is not a part of Basel III?			
		(i)	Minimum capital requirements		
		(ii)	Supervisory review process		
		(iii)	Market discipline		
		(iv)	Risk elimination	A	
	i.	The cost function of a firm is given by $c = x^3 - 4x^2 + 7x$, find at what level of output Average Cost is minimum and what level will it be?			
		(i)	2,3	A	
		(ii)	3,4		
		(iii)	4,2		
		(iv)	1,1		
	j.	Who amongst the following prompted the phrases, “Zero Defects” and “Rights First Time”?			
		(i)	Bill Smith		
		(ii)	Henry Ford		
		(iii)	Philip Crosby	A	
		(iv)	Henri Fayol		
	k.	Which of the following is not a risk management technique?			
		(i)	Risk avoidance		
		(ii)	Risk maximization	A	
		(iii)	Risk sharing		
		(iv)	Risk bearing		
	l.	Which of the following is not the principles of Valuation?			
		(i)	Principles of Substitution		
		(ii)	Principle of Time Value of Money		
		(iii)	Principle of Risk & Return		
		(iv)	Discounted cash flow Valuation	A	
	m.	Which measure of value tells whether a company is able to generate returns that exceed the costs of capital employed?			
		(i)	Cost of Capital		
		(ii)	Economic Value Added	A	
		(iii)	Market Value Added		
		(iv)	Financial Profit		

	n.	Which one of the following is not a measure taken by a target firm to avoid acquisition?			
		(i)	Poison Puts		
		(ii)	Poison Calls	A	
		(iii)	Golden Parachute		
		(iv)	Flip Over Pill		
	o.	If value of A Ltd. is Rs. 50 Lakhs, B Ltd. is Rs. 20 Lakhs and on merger their combined value is Rs. 90 Lakhs and A Ltd. receives premium on merger Rs. 12 Lakhs, the synergy for merger is Rs. ______ Lakhs.			
		(i)	8		
		(ii)	20	A	
		(iii)	32		
		(iv)	38		
	p.	A Ltd. acquires B Ltd. by exchange of shares. EPS of A Ltd. and B Ltd. shares are Rs.50 and Rs.40 respectively. No. of shares of A Ltd. and B Ltd. are 80,000 and 50,000 respectively. What No. of shares A Ltd. requires to issue to B Ltd. in order to ensure that EPS of A Ltd. would remain same after merger? (Assume that earnings of the merged company would be equal to the aggregate of the earnings of the companies before merger)?			
		(i)	25,000		
		(ii)	40,000	A	
		(iii)	1,00,000		
		(iv)	1,30,000		
	q.	Physical risk arising out of Social, Political, Economic and Legal Environments are often identified through the performance of ___________________ .			
		(i)	lead indicators	A	
		(ii)	lagging indicators		
		(iii)	lead and lag indicators		
		(iv)	the government		
	r.	Assume that in a Stock Market, the CAPM is working. A company has presently beta of 0.84 and it's 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 ______ .			
		(i)	increase		
		(ii)	decrease		
		(iii)	remain unchanged	A	
		(iv)	nothing can be concluded		
	s.	Book value is least likely to be considered when using _____________________ .			
		(i)	a multiplier model		
		(ii)	an asset-based valuation model		
		(iii)	a present value model	A	
		(iv)	None of the above		
	t.	Z Ltd. has an issued and paid-up capital of 50,000 shares of Rs.100 each. The company declared a dividend of Rs.12.50 lakhs during the last five years and expects to maintain the same level of dividends in the future. The control and ownership of the company is lying in the few hands of Directors and their family members. The average dividend yield for listed companies in the same			

		line of business is 18%. What will be the value of 3,000 shares in the company?			
		(i)	Rs.3,14,500		
		(ii)	Rs.2,18,900		
		(iii)	Rs.1,19,300		
		(iv)	Rs.4,16,700	A	
Section B **You are required to answer all the questions. Each question carries 2 marks.** **Instructions: Each question is followed by a space where you are required to type your answer.**					**10 X 2 = 20 Marks**
2.					
	a.	Shyam Ltd has announced issue of warrants on 1: 1 basis for its equity shareholders. The Exchange ratio is 1.00. The current market price of the stock is Rs.10 and warrants are convertible at an exercise price of Rs.11.71 per share. Warrants are detachable and are trading at Rs.3. What is the minimum price of this warrant?			
		Type your answer here Zero			
	b.	The type of benchmarking, which is concerned with the development of core competencies that will help sustained competitive advantage, is called:			
		Type your answer here Strategic Benchmarking			
	c.	The risk which is primarily influenced by the level of financial gearing, interest cover, operating leverage, and cash flow adequacy, is called:			
		Type your answer here Financial risk			
	d.	X Ltd. has Rs.100 crores worth of common equity on its balance sheet comprising of Rs.50 lakhs shares. The company's Market Value Added (MVA) is Rs.24 crores. What is company's stock price?			
		Type your answer here Rs.248			
	e.	One of the exceptions of Law of Demand is described by Sir Robert Giffen. He said that even though the price, for necessary goods rise, the demand for them will not decrease. These goods are called?			
		Type your answer here Giffen goods			
	f.	What measures the overall productivity and efficiency by considering all inputs and all outputs in the production process.?			
		Type your answer here Total Factor Productivity			
	g.	A firm has total cost function: $C = 1/9\ X^3 - l/2\ X^2 - 18\ X + 30$; C is total cost and X is quantity produced. One is wondering whether MC (marginal cost) can ever be zero. If you believe that the firm's MC can be zero, then it will be when X is equal to?			
		Type your answer here 9			
	h.	What is Synergy Value?			
		Type your answer here Synergy Value is the present value of expected future cash flows that will result from the combined operations and additional benefits expected to accrue			
	i.	If an all equity firm has Cash from Operating Activities amounting to Rs. 60 lakhs, Depreciation Rs. 30 lakhs, increase in non-cash working capital Rs. 25 lakhs and Capital expenditure Rs. 20			

		lakhs, then what is the value of Free Cash Flows to Equity?	
		Type your answer here Rs.40 Lakh	
	j.	X 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 16%. What is the value of cost of equity capital based on CAPM ?	
		Type your answer here 18.8%	
Section C **You are required to answer any 4 out of 6 questions in this section** **Instructions: Each question is followed by a space where you are required to type your answer.**			**4 X 12 = 48 Marks**
3.	**a.**	How Supply chain management is developed to introduce a new product in the market?	6
		Type your answer here The development of chain is the set of activities and processes associated with new product introduction. It includes the product design phase, the associated capabilities and knowledge that need to be developed internally, sourcing decisions and production Plans. Specifically, the development chain includes decisions such as product architecture; what to make internally and what to buy from outside suppliers, that is, make /buy decisions; supplier selection; early supplier involvement; and strategic partnerships. The development and supply chains intersect at the production point. It is clear that the characteristics of and decisions made in the development chain will have an impact on the Supply Chain. Similarly, it is intuitively clear that the characteristics of the supply chain must have an impact on product design strategy and hence on the development chain. To make matters worse, in many organizations, additional chains intersect with both the development and the supply chains. These may include the reverse logistics chain, that is, the chain associated with returns products or components, as well as the spare – parts chain. We illustrate how the consideration of these characteristics leads to the development of frameworks to assist in matching product strategies. **Global optimization is made even more difficult because supply chains need to be designed for, and operated in, uncertain environments, thus creating sometimes enormous risks to the organization. A variety of factors contribute to this:** 1. Matching Supply and Demand: It is a major challenge: **a. Boeing Aircraft announced a write-down of $ 2.6 billion in October 1997 due to "Raw Material Shortages internal and supplier parts shortages and productivity inefficiencies".** **b. "Second quarter sales at U.S. surgical Corporation declined 25 percent, resulting in a Loss of $22 million. The sales and earnings shortfall is attributed to larger than anticipated inventories on the shelves of hospitals."** **c. "Intel, the world's largest chip maker, reported a 38 percent decline in quarterly profit Wednesday in the face of stiff competition from Advanced Micro Devices and a general slowdown in the personal computer market that caused inventories to swell". Obviously, this difficulty stems from the fact those months before demand is realized; manufacturers have to commit themselves to specific production levels. These advance commitments imply huge financial and supply risks.** **2. Inventory and back – Order levels fluctuate considerably across the supply chain:** **Even when customer demand for specific products does not vary greatly. To illustrate this issue, consider the above figure, which suggests that in typical supply chain, distributors orders to the factory fluctuate far more than the underlying retailer demand.** **3. Forecasting does not solve the problem:** **Indeed, we will argue that the first principle of forecasting is that "Forecasts are always wrong." Thus, it is impossible to predict the precise demand for a specific item, even with the**	

		most advanced forecasting technique. **4. Demand is not the only source of uncertainty:** **Delivery leads times, manufacturing yields, transportation times, and component availability also can have significant chain impact.** **5. Recent trends:** **Recent trend is such as lean manufacturing, outsourcing and off shoring that focus on cost reduction increases risk significantly.** **For example, consider an automotive manufacturer whose parts suppliers are in Canada and Mexico. With little uncertainty in transportation and a stable supply schedule, parts can be delivered to assembly plants "Just –In Time" (JIT) based on fixed production schedules.** **However, in the event of an unforeseen disaster, such as the September '11 terrorist attacks, Port strikes, January, 26, 2001 earth quake in the India, state of Gujarat, etc., JIT is not maintainable.** **Although, uncertainty and risk cannot be eliminated, we will explore a variety of examples that illustrate how product design, network modeling, information technology, procurement and inventory strategies are used to minimize uncertainty, and to build flexibility and redundancy in the supply chain in order to reduce risks.**	
	b.	How Bench Trending is different from Benchmarking?	6
		Type your answer here Continuous monitoring of specific process performance with a selected group of benchmarking is a systematic and continuous measurement process of comparing through measuring an organization business processes against business leaders (role models) anywhere in the world, to gain information that will help organization take action to improve its performance. The continuous process of enlisting the best practices in the world for the processes, goals and objectives leading to world class levels of achievement. Benchmarking is the process of comparing the cost, time or quality of what one organization does against what another organization does. The result is often a business case for making changes in order to make improvements. Benchmarking is a powerful management tool because it overcomes "paradigm blindness". Paradigm Blindness can be summed up as the mode of thinking, "the way we do it is the best because this is the way we've always done it". Bench Marking opens organizations to new methods, ideas and tools to improve their effectiveness. It helps crack through resistance to change by demonstrating other methods of solving problems than the one currently employed and demonstrating that they work, because they are being used by other: a) Identify your problem areas. b) Identify other industries that have similar processes. c) Identify organizations that are leaders in these areas. d) Survey companies for measures and practice e) Visit the "best practice" companies to identify leading edge practices. f) Implement new and improved business practices.	
4.	**a.**	A company is planning to market a new model of a doll. Rather than setting the selling price of the doll based only on production cost estimation management polls the retailers of the doll to see how many dolls they will buy for various prices. From this survey, it is determined at the unit demand function (the relationship between the amount 'x' each retailer would buy and the price he would pay) is x = 30000 – 1500P. The fixed cost of the production of the dolls are found to be Rs.28,000 and cost of Material & labour to produce each doll is estimated to be Rs. 8 per unit. What price should the company charge retailer in order to obtain a maximum profit? Also find the maximum profit	4
		Type your answer here	

		Price to be charged = Rs.9,000 Maximum Profit = Rs.26,000 **ROUGH WORK** x = 30000 –1500P **x – 30000 = –1500P** **Therefore, P = 30000 – x/1500** **Revenue = 30000x – x^2/1500** **C = 8x + 28000** **Profit (y) = 30000x – x^2/1500 – 8x – 28000** **Dy/dx = 1/1500 (30000 – 2x) – 8 = 0** **= 30000 – 2x – 12000 = 0** **Or, –2x = –18000** **Or, x =18000/2 = 9000** **d^2y/dx^2 = –2, which is Negative** **Profit = 30000 × 9000 – 9000^2/1500 – 72000 – 28000** **180000 – 810000/15 – 72000 – 28000** **= 180000 – 54000 – 72000 – 28000 = 26000**	
	b.	"ERM is a comprehensive and integrated approach to addressing corporate risk"-justify your answer.	8
		Type your answer here The Enterprise Risk Management (ERM) is defined as "a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives". From the above definition, ERM is: (a) A process, ongoing and following through an entity. (b) Effected by people at every level of an organization. (c) Applied in strategy-setting. (d) Applied across the enterprise, at every level and unit, and includes taking an entity-level portfolio view of risk. (e) Designed to identify potential events affecting the entity and manage risk within its risk appetite. (f) Able to provide reasonable assurance to an entity's management and board. (g) Geared to the achievement of objectives in one or more separate but overlapping categories. ERM is about designing and implementing capabilities for managing the risks that matter. The greater the gaps in the current state and the desired future state of the organizations risk management capabilities, the greater the need for ERM infrastructure to facilitate the advancement of risk management capabilities overtime. ERM is about establishing the oversight, control and discipline to drive continuous improvement of an entity's risk management capabilities in a changing operating environment. ERM deals with risk and opportunities affecting value creation or preservation. In ERM, a risk is defined as a possible event or circumstance that can have negative influences on the enterprise in question. Its impact can be on the very existence, the resources (human and capital), the products and services, or the customers of the enterprise, as well as external impacts on society, markets or the environment. ERM enables management to effectively deal with uncertainty and associated risk and opportunity, enhancing the capacity to build value That is the reason why ERM is a comprehensive and integrated approach to addressing corporate risk.	
5.	**a.**	What is Operative and Collaborative CRM?	4

Type your answer here

Operative CRM:

Operative CRM mainly supports the actual contact with customers conducted by front office workers and general automation of business processes including sales of products, services and marketing. All communication with the customer is tracked and stored in the database and if necessary it is effectively provided to users (workers). The advantage of this approach being the possibility to communicate with various employees using various channels but creating the feeling that the customer is being taken care of by just one person. It can also minimize the time that the worker has to spend typing the information and administrating (the data is shared). This allows the company to increase the efficiency of their employees' work and they are then able to serve more customers.

Collaborative CRM:

Collaborative CRM enables all companies along the distribution channel, as well as all departments in a company, to work together and share information about customers, and even speaks about partner relationship management (PRM). But sometimes we might see a rivalry between departments that undermines efforts of CRM to share relevant data throughout the whole company (e.g. information from helpline can help the marketing department choose a point on which it will focus during the next campaign). The goal of collaborative CRM then is maximum sharing of relevant information acquired by all departments with the focus on increasing the quality of services provided to customers The ultimate outcome of this process should be an increase in the customer's utility and his loyalty.

b. State two basic categories of Statistical Quality Control (SQC)? 2

Type your answer here

1. Statistical Process Control (SPC): - the application of statistical techniques to determine whether a process is functioning as desired

2. Acceptance Sampling: - the application of statistical techniques to determine whether a population of items should be accepted or rejected based on inspection of a sample of those items.

c. Two firms A and B Corporation operate independently and have the following financial statements:

Particulars	A	B
Revenues (Rs.)	8,00,000	4,00,000
Cost of Goods Sold (COGS) (Rs.)	6,00,000	2,40,000
EBIT (Rs.)	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.

(i) Estimate the value of the two firms A & B before the merger with no synergy effect. 2

Type your answer here

Value of the Firms before the Merger

Calculation of Free Cash Flow to each of the Firm

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

(ii) Estimate the value of the combined firm A & B both with and without synergy effect — 4

Type your answer here

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 =Rs. 12,00,000
Cost of goods sold = 65% of revenues = 0.65 × 12,00,000 = Rs. 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

ROUGH WORK

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

Value of the Firm without Synergy [2,16,000 (1.07)] / 0.11 – 0.07 = Rs. 57,78,000
Value of the firm with Synergy = [2,52,000 (1.07)] / 0.11 – 0.07 = Rs. 67,41,000

6 a. What are the elements that influenced the Brand Valuations? — 6

Type your answer here

Business valuation refers to the process and set of procedures used to determine the economic value of an owner 's interest in a business.
The three elements of Business Valuation are:
(1) Economic Conditions
As we see in Portfolio Management Theory, wherein we adopt the Economy-Industry-Company (E-IC) approach, in Business Valuation too, a study and understanding of the national, regional and local economic conditions existing at the time of valuation, as well as the conditions of the industry in which the subject business operates, is important. For instance, while valuing a company involved in sugar manufacture in India in January 2016 the present conditions and

forecasts of Indian economy, industries and agriculture; prices of sugar in overseas markets are to be understood before the prospects of Indian sugar industry and that of a particular company are evaluated.

(2) Normalization of Financial Statements

This is the second element that needs to be understood for the following purposes: (a) Comparability adjustments: to facilitate comparison with other organizations operating within the same industry. (b) Non-operating adjustments: Non-operating assets need to be excluded. (c) Non-recurring adjustments: Items of expenditure or income which are of the non-recurring type are to be excluded to provide comparison between various periods. (d) Discretionary adjustments: Wherever discretionary expenditure had been booked by a company, they are scrutinized to be adjusted to arrive at a fair market value.

(3) Valuation Approach

There are three common approaches to business valuation - Discounted Cash Flow Valuation, Relative Valuation, and Contingent Claim Valuation. Within each of these approaches; there are various techniques for determining the fair market value of a business. Valuation models fall broadly into four variance based respectively on assets, earning, dividend and discounted cash flows. For all these the typically Capital Asset Pricing Model is used to calculate a discount rate. Each method has its advantages and disadvantages and are not appropriate in all circumstances. It is often not wise to depend on a single method. Calculating a range of value using different appropriate types of valuation can provide valuable benchmarks for the project or entity valuation being considered.

b. A Ltd. is considering the acquisition of B Ltd. with stock. Relevant financial information is given below. 6

Particulars	A Ltd.	B Ltd.
Present Earnings	Rs.75 Lakhs	Rs.2.5 Lakhs
Equity (No. of shares)	4.0 Lakhs	2.0 Lakhs
EPS	1.875	1.25
P/E Ratio	10	5

Answer the following question:

I. **What is the market price of share of A Ltd.?**
II. **What is the market price of share of B Ltd.?**
III. **What is the market capitalization of each company?**
IV. **If the P/E of A Ltd. changes to 7.5, what is the market price of A Ltd?**
V. **Does market value of A Ltd. change?**
VI. **What would be the exchange ratio based on Market Price? (Take revised Price of A Ltd.)**

Type your answer here

P/E = Market Price/ EPS.

Therefore, we have, Market price = P/E × EPS

I. So, the market price of A Ltd. is= 10 × 1.875 = Rs.18.75
II. So, the market price B Ltd.'s is = 5 ×1.25 = Rs.6.25
III. Market Capitalization (same as market value or in short referred as market Cap)
   = Number of outstanding shares × market Price
   A Ltd.'s Market cap = 4.0 lakhs × Rs.18.75 = Rs.75 Lakhs
   B Ltd.'s market cap = 2.0 lakhs × Rs.6.25 = Rs.12.5 Lakhs
IV. If the P/E of A ltd. changes to 7.5, then the market price is given by
   = 7.5 ×Rs.1.875 = Rs.14.0625
V. Yes. The market value decreases. i.e. = A Ltd.'s market Value = 4.0 lakhs × Rs.14.0625 = Rs.56.25 Lakhs.
VI. General Formula for exchange ratio = MPS of Target Firm /MPS of

		acquiring Firm = 6.25/14.0625 = 0.44.	
7.	**a.**	S Ltd had earned a PAT of Rs. 48 Lakhs for the year just ended. The following information's are given below: (i) Tax Rate for the year just ended was 36%. Future Tax rate is estimated at 34%. (ii) The Company's Equity Shares are quoted at Rs. 120 at the Balance Sheet date. The Company had an Equity Capital of Rs. 100 Lakhs, divided into Shares of Rs. 50 each. (iii) Profits for the year have been calculated after considering the following in the P & L Account: • Subsidy Rs. 2 Lakhs received from Government towards fulfillment of certain social obligations. The Government has withdrawn this subsidy and hence, this amount will not be received in future. • Interest Rs. 8 Lakhs on Term Loan. The final instalment of this Term Loan was fully settled in the last year. • Managerial Remuneration Rs. 15 Lakhs. The Shareholders have approved an increase of Rs. 6 Lakhs in the overall Managerial Remuneration, from the next year onwards. • Loss on sale of Fixed Assets and Investments amounting to Rs. 8 Lakhs. (Ignore Tax Effect thereon) With the help of these information, Find out: 1)Future Maintainable Profit 2)Rate of Capitalization 3)Value of business.	6
		Type your answer here 1)Future Maintainable Profit = Rs.54,78,000 2)Rate of Capitalization = 20% 3)Value of business = Rs.273.90 Lakhs **ROUGH WORK** 1.Computation of Future Maintainable Profits Particulars — Rs. Profit after Tax for the year just ended — 48,00,000 Add: Tax Expense (Tax is 36%, So PAT = 64%, Hence, Tax = 48,00,000 × 36/64) — 27,00,000 Profit before Tax for the year just ended — 75,00,000 Add/ (Less): Adjustments in respect of Non-Recurring items Subsidy Income not received in future — (2,00,000) Interest on Term Loan not payable in future, hence saved — 8,00,000 Additional Managerial Remuneration — (6,00,000) Loss on Sale of Fixed Assets and Investments (non-recurring) 8,00,000 Future Maintainable Profits before Tax — 83,00,000 Less: Tax Expense at 34% — 28,22,000 Future Maintainable Profits after Tax Equity Earnings — 54,78,000 2. Computation of Capitalization Rate and Value of Business Particulars — Rs. (a) Profit after Tax for the year just ended — 48 Lakhs (b) Number of Equity Shares (Rs.100 Lakhs ÷ Rs.50 per Shares) — 2 Lakhs (c) Earnings Per Share (EPS) = PAT ÷ Number of Equity Shares — 24 (d) Market Price per Share on Balance Sheet Date — 120 (e) Price Earnings Ratio = MPS ÷ EPS — 5 (f) Capitalization Rate = 1 ÷ PE Ratio — 20% (g) Value of Business = Future Maintainable Profits ÷ Capitalization Rate	

		= Rs. 54.78 Lakhs ÷ 20% = Rs.273.90 Lakhs	
	b.	Describe the segment wise classification of Cost of inventories.	6
		Type your answer here Cost of inventory can be classified into the followings- (a) Costs of purchase, (b) Costs of conversion, and (c) "Other costs" incurred in bringing the inventories to their present location and condition. (a) Costs of Purchase The costs of purchase include • Purchase price, inclusive of government levies, • Import duties and import related expenses if procured from overseas sources, • All logistics costs, including warehousing and stock keeping expenses, • Handling costs directly pertaining to the acquisition of the goods (b) Costs of Conversion of Inventory Cost of conversion of inventory includes costs directly attributable to the units of production, for example, direct labour. The conversion costs could also include variable and fixed manufacturing overhead incurred in converting raw materials into finished goods. Fixed overhead costs remain constant irrespective of the units of production. Variable costs are those costs that vary directly with the volume of production. Allocation of overhead to the cost of conversion is based on the "normal capacity" of the facility or in proportion to actual quantity manufactured vs. quantity in stock, as is appropriate. Normal capacity is the production that is normally achieved on average over a number of periods. (c) Other Costs in Valuing Inventories Valuing inventories include those costs that are incurred in bringing inventories to their present location and condition in other cost. For example, cost for designing a product on the basis of specific customer needs or transport costs to an interim position for certain logistics activity prior to acceptance and actual passing of property to the goods to the customer. Certain costs are excluded in valuing inventory are such as: (a) Abnormal amounts of wasted materials, labour, or other production costs (b) Storage costs unless they are essential to the production process (c) Administrative overheads that do not contribute to bringing inventories to their present location and condition (d) Selling costs.	
8.		**You are required write Short Notes on any 4 out of 5**	**4 X 3 = 12 Marks**
	a.	Various components of Management Information System	3
		Type your answer here Management Information System Management Information System (MIS) is a systematic process of providing pertinent information in exact time in the correct format to all levels of users in the organization for effective decision making. MIS is also defined to be a system of collection, processing, retrieving and transmission of data to meet the information requirement of different levels of managers in an organization. MIS can be defined as a network of information that supports management decision making. The role of MIS is to recognize information as a resource and then use it for the effective and timely achievement of organizational objectives. Components of MIS: The main components of a typical management information system are: (i) People: people who use the information system	

		(ii) Data: the data that the information system records (iii) Business Procedures: Procedures put in place on how to record, store and analyze data (iv) Hardware: These include servers, workstations, networking equipment, printers, etc. (v) Software: These are programs used to handle the data. These include programs such as spreadsheet programs, database software, etc.	
	b.	5S concept in Quality Management	3
		Type your answer here 5 S's concept in Quality Management are: **1. SEIRI: The literal meaning of the Japanese word SEIRI' is to "straighten and contain'. It can be understood as discard unnecessary things i.e., get rid of waste and put things in such a way as to have quick access. This is how 'straighten and contain' can be interpreted.** **2. SEITON: While 'SEIRI' helps us to decide what are the items needed, 'SEITON' helps to decide the way things are to be placed so that our working is smooth. SEITON' involves safety and productivity.** **3. SEISO: The literal meaning of the word 'SEISO' is clean up. It means take up the job of cleaning. Such cleaning is not restricted merely to the machines, table, kitchen cabinet etc., i.e., whichever we have taken up. It should be extended to the entire surroundings.** **4. SEIKETSU: Seiri, Seiton and Seiso are easy to do once, but it is very difficult to maintain. To maintain, we have to standardize the system. Seiketsu is nothing but standardization. In five, 'S' means ensuring whatever cleanliness and orderliness have been achieved through Seiri, Seiton and Seiso, they are maintained. We should keep a strict control over the situation.** **5. SHITSUKE: Shitsuke means discipline. Discipline is following a system, which calls for changing from our present unsystematic way of adherence to set procedures. Systems function in an orderly manner**.	
	c.	Benefits of Risk Mapping	3
		Type your answer here The benefits of Risk Mapping are: • Promotes awareness of significant risks through priority ranking, facilitating the efficient planning of resources. • Enables the delivery of solutions and services across the entire risk management value chain. • Serves as a powerful aid to strategic business planning. • Aids the development of an action plan for the effective management of significant risks. • Assigns clear responsibilities to individuals for the management of particular risk areas. • Provides an opportunity to leverage risk management as a competitive advantage. • Facilitates the development of a strategic approach to insurance programme design. • Supports the design of the client's risk financing and insurance programmes, through the development of effective/optimal retention levels and scope of coverage etc.	
	d.	Distinction between Equity Value and Enterprise Value	3
		Type your answer here Equity and Enterprise Value: There is an important distinction between equity value and enterprise value. The equity value of a company is the value of the shareholders' claims in the company. The value	

of a share is arrived at by dividing the value of the company's equity as accounted in the balance sheet by the total number of shares outstanding as on the date of valuation. In other words, it represents the all-inclusive value of the company, determined using any method, less all its liabilities. When a company is publicly traded, the value of the equity equals the market capitalization of the company, which may or may not represent at any point of time the fair value of the equity. It quite often it is observed that market has underpriced the equity of a listed entity because of many business ecosystems related reasons, market sentiments, or lack of information, etc., which may not affect a particular company.

The enterprise value of a company denotes the value of the entire company to all its claimholders.

Enterprise value = Equity value + market value of all debts + minority interest + pension and other similar Employee's benefits related provisions + other claims.

	e.	Managerial synergy	3

Type your answer here

One of the potential gains of merger is an increase in managerial effectiveness. This may occur if the existing management team, which is performing poorly, is replaced by a more effective management team. Often a firm, plagued with managerial inadequacies, can gain immensely from the superior management that is likely to emerge as a sequel to the merger. Another allied benefit of a merger may be in the form of greater congruence between the interests of the managers and the shareholders In the present day scenario banks consider the managerial abilities and reliability factor as one of the considerations for adding margin spread over base rate or marginal rate of lending to fix the rate of interest to be charged to a company. Hence higher the dependency factor lowers the rate of interest on borrowings.

A common argument for creating a favourable environment for mergers is that it imposes a certain discipline on the management. If lackluster performance renders a firm more vulnerable to potential acquisition, existing managers will strive continually to improve their performance.

Section D
You are required to answer all the questions in this section
Instructions: Each question is followed by a space where you are required to type your answer.

2 X 6 = 12 Marks

9. A Ltd. makes and sells a particular brand of garment, the unit specifications are as follows:

Particulars	Particulars
Direct material: Linen	5 meter at Rs. 240 per meter
Machine time	30 minutes running
Machine cost per gross hour	Rs. 400
Selling price	Rs. 2000

A Ltd. requires to fulfill orders for 5,000 garments units per period. There is no stock of garments at the beginning or end of the period under review. The stock level of material Linen remains unchanged throughout the period.

A Ltd. is planning to implement a Quality Management Program (QMP) to increase customer satisfaction by finding the factors that limit current performance TQM.

The following information regarding costs and revenues are given as of now and after implementation of the QMP:

	Before the implementation of QMP		After the implementation
1	5% of incoming material from suppliers scrapped due to poor receipt and storage organization.	1	Reduced to 3%

2	4% of Linen input to the machine process is wasted due to processing problems.	2	Reduced to 2.5%
3	Inspection and storage of Material Linen costs Rs. 1 per meter purchased.	3	No change in the unit rate
4	Inspection during the production cycle, calibration checks on inspection equipment vendor rating and other checks cost Rs. 2,50,000 per period.	4	Reduction of 60% of the existing cost
5	Production quantity is increased to allow for the down-grading of 12.5% of the production units at the final inspection stage. Down-graded garments are sold as seconds at a discount of 40% of the standard selling price.	5	Reduction to 5%
6	Production quantity is increased to allow for return from customers (these are replaced free of charge) due to specification failure and account for 5% of units actually delivered to customers Returned garments are sold as factory sales at a discount of 10% of the standard selling price.	6	Reduction to 2.5%
7	Product liability and other claims by customers is estimated at 2% of sales revenue from standard product sale.	7	Reduction to 1%
8	Machine idle time is 20% of gross machine hours used (i.e. running hour = 80% of gross machine hour)	8	Reduction to 12.5%
9	Sundry costs of administration, selling and distribution total – Rs. 6,00,000 per period	9	Reduction by 10% of the existing
10	Prevention program costs Rs. 2,00,000.	10	Increase to Rs. 6,00,000

The total quality management program will have a reduction in machine run time required per garment unit to 20 minutes.

a. Comments on total production units (pre-inspection) required for the situation both before and after the implementation of the QMP for fulfilling orders for 5,000 garment units. 2

Type your answer here

After implementation of QMP, the pre-inspection production unit required for fulfilling orders for 5,000 garment units has been reduced from 6000 units to 5395 units.

ROUGH WORK

Particulars	Before implementation of QMP	After implementation of QMP
Sales required to fulfill orders	5000 units	5000 units
Add: Specification losses (@ 5%); (@ 2.5%)	250	125
	5250	5125
Add: Down-grading at inspection	5250 x 12.5/87.5 = 750	5125 x 5/95 = 270
Total production before inspection	6000 units	5395 units

	b.	Comments on Purchase of material Linen (meters) required for the situation both before and after the implementation of the QMP for fulfilling orders for 5,000 garment units.	2

Type your answer here

After implementation of QMP, the Linen material required for fulfilling orders for 5,000 garment units has been reduced from 32895 meters to 28523 meters

ROUGH WORK

Particulars	Before implementation of QMP	After implementation of QMP
Material required	6,000 units × 5 = 30,000 meters	5,395 units × 5 = 26,975 meters
Add: Processing loss	30000 x 4/96 = 1250	26975 x 2.5/97.5 = 692
	31,250 meters	27667 meters
Add: Scrapped material	31250 x 5/95 = 1645	27667 x 3/97 = 856
Total Linen material required to purchase	32,895 meters	28,523 meters

	c.	Comments on Gross machine hours required for the situation both before and after the implementation of the QMP for fulfilling orders for 5,000 garment units.	2

Type your answer here

After implementation of QMP, the Gross Machine Hours required for fulfilling orders for 5,000 garment units has been reduced from 3750 Hours to 2056 Hours.

ROUGH WORK

Particulars	Before implementation of QMP	After implementation of QMP
Machine hour required for total production	6000 x 30/60 = 3000 Hours	5395 x 20/60 = 1799 Hours
Add: Idle Time	3000 x 20/80 = 750	1799 x 12.5/87.5 = 257
Total gross machine hours required	3750 Hours	2056 Hours

10. X Ltd. is a garment producing manufacturing company intended to acquire Y Ltd., who is a raw material producing company of garments. As X Ltd. is garments producing company so for them its costly affair to purchase the raw material from outside and manufacture the garment inside and sell them to wholesalers at low cost. That all has worst effect on their cost sheet as their revenue is reducing day by day and their cost is increasing rapidly. So to eradicate this problem they have come up with the idea to acquire the company who is basically prepares raw material. In this context, it is decided by the Senior management of X ltd. to acquire raw material producing company so their cost sheet will balance with both cost and revenue factors.
For that the following information related to the accusation is given below:

		X Ltd. is considering the acquisition of Y Ltd., in a stock- for- stock transaction in which Y Ltd., would receive Rs.90 for each share of its common stock. X Ltd. does not expect any change in its price/ earnings ratio multiple after the merger and chooses to value the Y Ltd conservatively by assuming no earnings growth due to synergy. **The following additional information are also given below:**	
a.		**What is The purchase price premium and the exchange ratio?**	2
		Type your answer here **The purchase price premium = Offer price for Y Ltd. stock/ Y Ltd Market price per share =90/60 = 1.5** **And the exchange ratio = Price per share offered for Y Ltd /Market Price per share for X Ltd.= 90/50 = 1.8** **X Ltd. issues 1.8 shares of stock for each of Y Ltd' s share.**	
b.		**Pre-merger EPS & P/E ratio of the Acquiring company.**	2
		Type your answer here **Pre-merger EPS of X Ltd. = Earnings/No. of shares** **= 25000/110000 = Rs.2.273** **Pre-merger P/E of X Ltd = Pre-merger market price per share / Pre-merger earnings per share** **= 50/2.273 = 22.00**	
c.		**What is the post-merger equity ownership distribution.**	2
		Type your answer here **Post-merger Equity Ownership Distribution of Y Ltd = Number of new shares / Total number of shares** **= 36,000/ 1,46,000 = 0.2466 or 24.66%.** **Post-merger Equity Ownership Distribution of X Ltd = 100 – 24.66 = 75.34%.**	

Particulars	X L td.	Y L td.
Earnings	**Rs.2,50,000**	**Rs.72,500**
Number of shares	**Rs.1,10,000**	**Rs.20,000**
Market Price per Share	**50**	**Rs.60**

END