THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

STRATEGIC COST MANAGEMENT (PAPER - 16)
MCQ BANK

SL NO	QUESTIONS	OPTION 1	OPTION 2	OPTION 3	OPTION 4
1	Which of the following is not a primary activity of Value Chain?	Inbound Logistics	Operations	Service	Infrastructure
2	Which of the following is not a secondary activity of Value Chain?	Procurement	Human Resource Development	Service	Technology Development
3	Which of the following is not a term normally used in value analysis?	Resale value	Use value	Esteem value	Cost value
4	A company has forecast sales and cost of goods sold for the coming year as Rs. 25 lakhs and Rs. 18 lakhs respectively. The inventory turnover has been taken as 9 times per year. In case the inventory turnover increases to 12 times and the short-term interest rate on working capital is taken as 10%, what will be the saving in cost?	Rs. 10,000	Rs. 20,000	Rs. 15,000	Rs. 5,000
5	Which of the following important pillars of Strategic Cost Management determines the company's comparative position in the industry in terms of performance?	Cost Driver Analysis	Value Chain Analysis	Strategic Positioning Analysis	Competitive Value Analysis
6	_____ is defined as the real and permanent reduction in the unit costs of goods manufactured or services rendered without impairing their suitability for the use intended.	Cost control	Cost reduction	Cost measurement	Cost strategy
7	There are three core areas to consider when developing the supply chain strategy and business case. These are:	People, Process & Systems	Control, Process & Systems	People, Planning & Systems	Control, Money & Systems
8	TQM stands for:	Technical Quantitative Management	Total Quality Management	Theory of Queuing Management	None of the Above
9	Four Ps of Total Quality Management:	Principles, Project, Problem, & Process	People, Process, Problem & Preparation	Product identification, Product quality, Product utility & Product expectation	None of the Above
10	PRAISE stands for:	Appreciating someone	Product, Recognition, Adoption, Invention, Solution & Evaporation	Problem Identification, Ranking, Analysis, Innovation, Solution & Evaluation	None of the Above
11	DMIADV is a methodology associated with:	Pareto Analysis	PRAISE	Six Sigma	None of the Above
12	Pareto analysis recognizes:	80:20 Rule	50:50 Rule	20:80 Rule	None of the Above
13	Cost of Rework is a cost related to:	Internal failure	Appraisal	Prevention	None of the Above
14	The cost incurred to ensure that failures do not happen:	External failure cost	Internal failure cost	Prevention cost	None of the Above
15	The break-even point of a manufacturing company is Rs.1,60,000. Fixed cost is Rs.48,000. Variable cost is Rs.12 per unit. The PV ratio will be:	20%	40%	30%	25%
16	The higher the actual hours worked:	The lower the capacity usage ratio	The higher the capacity usage ratio	The lower the capacity utilization ratio	The higher the capacity utilization ratio

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17	XYZ Ltd. has the following alternative planned activity levels: Total cost (Rs.): 1,00,000 (Level E) 1,50,000 (Level F) 2,00,000 (Level G) No. of units produced: 5,000 (Level E) 10,000 (Level F) 15,000 (Level G) If fixed overhead remains constant, then fixed overhead cost per unit at Level E is:	Rs. 20	Rs. 15	Rs. 13.33	Rs. 10
18	T Ltd. produces and sells a product. The company expects the following revenues and costs in 2024: Revenues (400 sets sold @ Rs.600 per product) = Rs. 2,40,000 Variable costs = Rs. 1,60,000 Fixed costs = Rs. 50,000 What amount of sales must T Ltd. have to earn a target net income of Rs.63,000 if they have a tax rate of 30%?	Rs. 4,20,000	Rs. 4,29,000	Rs. 3,00,000	Rs. 4,89,000
19	Excel Products Ltd. manufactures four products e.g. Product E, Product F, Product G and Product H using same raw materials. The input requirements for Products E, F, G and H are 1kg, 2kgs, 5kgs and 7kgs, respectively. Product-wise Selling Price and Variable Cost data are given hereunder: Selling Price of Products E, F, G & H are Rs.100, Rs.150, Rs.200 & Rs.300 respectively and variable costs are Rs.50, Rs.70, Rs.100 & Rs.125 respectively. Assuming raw material availability is a limiting factor, the correct ranking of the products would be:	E, F, G & H	E, F, H & G	F, E, G & H	F, E, H & G
20	A company has a breakeven point when sales are Rs. 3,20,000 and variable cost at that level of sales are Rs. 2,00,000. How much would p/v ratio increase or decrease if variable expenses are dropped by Rs.30,000?	Increase by 27.5%	Increase by 9.375%	Decrease by 9.375%	Increase by 37.5%
21	The Tech Company has fixed costs of Rs.400,000 and variable costs are 75% of the selling price. To realize profits of Rs.100,000 from sales of 5,00,000 units, the selling price per unit:	must be Rs.1.00	must be Rs.4.80	must be Rs.4.00	cannot be determined

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22	A company makes components and sells internally to its subsidiary and also to external market. The external market price is Rs.24 per component, which gives a contribution of 40% of sales. For external sales, variable costs include Rs.1.50 per unit for distribution costs. This is, however not incurred in internal sales. There are no capacity constraints. To maximize company profit, the transfer price to subsidiary should be:	Rs. 9.60	Rs. 12.90	Rs. 14.40	None of these
23	H Group has two divisions, Division P and Division Q. Division P manufactures an item that is transferred to Division Q. The item has no external market and 6000 units produced are transferred internally each year. The costs of each division: Variable Cost: Rs.100 per unit & Rs.120 per unit for Division P & Q respectively. Fixed cost each year: Rs.1,20,000 & Rs.90,000 for Division P & Q respectively. Head Office management decided that a transfer price should be set that provides a profit of Rs. 30,000 to Division P. What should be the transfer price per unit?	Rs. 145	Rs. 125	Rs. 120	Rs. 135
24	A particular job required 800 kgs of material – P. 500 kgs. of the particular material is currently in stock. The original price of the material – P was Rs.300 but current resale value of the same has been determined as Rs.200. If the current replacement price of the material – P is Rs.0.80 per kg., the relevant cost of the material – P required for the job would be:	Rs. 640	Rs. 440	Rs. 300	None of these
25	What is the opportunity cost of making a component part in a factory given no alternative use of the capacity?	The variable manufacturing cost of the component	The total manufacturing cost of the component	The total variable cost of the component	Zero
26	If project A has a net present value (NPV) of Rs.30,00,000 and project B has an NPV of Rs.50,00,000, what is the opportunity cost if project B is selected?	Rs. 23,00,000	Rs. 30,00,000	Rs. 20,00,000	Rs. 50,00,000
27	X Ltd. has 1000 units of an obsolete item which are carried in inventory at the original price of Rs.50,000. If these items are reworked for Rs. 20,000, they can be sold for Rs. 36,000. Alternatively, they can be sold as a scrap for Rs. 6,000 in the market. In a decision model used to analyse the reworking proposal, the opportunity cost should be taken as:	Rs. 16,000	Rs. 6,000	Rs. 30,000	Rs. 20,000
28	The shadow price of skilled labour for SD Ltd. is currently Rs. 10 per hour. What does this mean?	The cost of obtaining additional skilled labour is Rs. 10 per hour.	There is a hidden cost of Rs. 10 for each hour of skilled labour actively worked	Contribution will be increased by Rs. 10 per hour for each extra hour of skilled labour that can be obtained.	The total costs will be reduced by Rs. 10 for each additional hour of skilled labour that can be obtained.

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29	A factory can make only one of the three products X, Y or Z in a given production period. The selling price per unit of Product X, Y & Z is Rs.1,500, Rs.1,800 & Rs.2,000 respectively and variable cost per unit is Rs.700, Rs.950 & Rs.1,000 respectively. Assume that there is no constraint on resource utilization or demand and similar resources are consumed by X,Y and Z. The opportunity cost of making one unit of Z is:	Rs. 850	Rs. 800	Rs. 1,800	Rs. 1,500
30	A company has 2000 units of an obsolete item which are carried in inventory at the original purchase price of Rs. 30,000. If these items are reworked for Rs.10,000, they can be sold for Rs. 18,000. Alternatively, they can be sold as scrap for Rs.3,000 in the market. In a decision model used to analyse the reworking proposal, the opportunity cost should be taken as:	Rs. 8,000	Rs. 12,000	Rs. 3,000	Rs. 10,000
31	TM Company can make 100 units of a necessary component part with the following costs: Direct Materials - Rs.60,000 Direct Labour - Rs.10,000 Variable Overhead - Rs.30,000 Fixed Overhead - Rs.20,000 TM Company can purchase the component externally for Rs.1,10,000 and only Rs.5,000 of the fixed costs can be avoided, what is the correct make-or-buy decision?	Make and Save Rs.5000	Buy and save Rs.5,000	Make and Save Rs.15,000	Buy and save Rs.15,000
32	AP Products sells product A at a selling price of Rs.40 per unit. AP's cost per unit based on the full capacity of 5,00,000 units is as follows Direct Materials - Rs.6 Direct Labour - Rs.3 Indirect Manufacturing Expense 60% of which is fixed - Rs.10 A one-time only special order offering to buy 50,000 units was received from an overseas distributor. The only other costs that would be incurred on this order would be Rs. 4 per unit for shipping. AP has sufficient existing capacity to manufacture the additional units. In negotiating a price for the special order, AP should consider that the minimum selling price per unit should be:	Rs. 17	Rs. 19	Rs. 21	Rs. 23
33	In cost plus pricing, the markup consist of:	Manufacturing cost	Desired ROI	Selling and administrative cost	Total cost and desired ROI
34	MN paid Rs. 5,30,000 for a machine used to powder wheat. The machine can be sold for Rs. 1,30,000. The sale value of wheat is Rs. 8,00,000 and its variable cost is Rs. 4,00,000. The opportunity cost of producing wheat flour is:	Rs.5,30,000	Rs.1,30,000	Rs.3,50,000	Rs. 8,00,000

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35	A Ltd. Plans to introduce a new product and issuing the target cost approach. Projected sales revenue is Rs. 90,00,000 (Rs. 45 per unit) and target costs are Rs. 64,00,000. What is the desired profit per unit?	Rs. 13	Rs. 17	Rs. 32	Rs. 10
36	Target costing is the answer to:	Market driven prices	Sellers' market	No Profit situation	None of the above
37	The product of XYZ company is sold at a fixed price of Rs. 1,500 per unit. As per company's estimate, 500 units of the product are expected to be sold in the coming year. If the value of investments of the company is Rs. 15 lakhs and it has a target ROI of 15%, the target cost would be:	Rs. 930	Rs. 950	Rs. 1050	Rs. 1130
38	A company has the capacity of producing 80000 units and presently sells 20000 units at Rs. 100 each. The demand is sensitive to selling price and it has been observed that with every reduction of Rs. 10 in selling price the demand is doubled. What should be the target cost if the demand is doubled at full capacity and profit margin on sale is taken at 25%?	Rs.75	Rs.90	Rs.25	Rs.60
39	120 units of semi-conductors are required to be sold to earn a profit of Rs.1,00,000 in a monopoly market. The fixed cost for the period is Rs.80,000. The contribution in the monopoly market is as high as 3/4th of its variable cost. Determine the target selling price per unit.	Rs. 4500	Rs.3250	Rs.4000	Rs.3500
40	Cost Driver is:	Grouping of costs on a particular activity which drives them	Item for which cost measurement is required.	Elements that would cause a change in the cost activity.	All of the above
41	ABC Management:	Accurately identifies sources of profit and loss	Assigns costs using measure of service consumed	Recognizes the casual relationship of cost drivers to activities	All of the above
42	Process of Cost allocation under Activity Based Costing is:	Cost of Activities → Activities → Cost Driver → Cost allocated to cost objects	Cost Driver → Cost of Activities → Cost allocated to cost objects → Activities	Activities → Cost of Activities → Cost Driver → Cost allocated to cost objects	Activities → Cost Driver → Cost allocated to cost objects → Cost of Activities

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43	P operates an activity-based costing (ABC) system to attribute its overhead costs to cost objects. In its budget for the year ending 31st March 2022, the company expected to place a total of 2,895 purchase orders at a total cost of Rs. 1,10,010. This activity and its related costs were budgeted to occur at a constant rate throughout the budget year, which is divided into 13 four-week periods. During the four-week period ended 30 June 2021, a total of 210 purchase orders were placed at a cost of Rs. 7,650. The over- recovery of these costs for the four-week period was:	Rs. 330	Rs. 350	Rs. 370	Rs. 390
44	At KL Company, cost of personnel department has always been charged to production department based upon number of employees. Recently, opinion gathered from the department managers indicate that number of new hires might be better predictor of personnel cost, Total personnel department cost are Rs. 2,00,000. Department A B C Number of employees 30 270 100 The number of new hires 8 12 5 If number of new hires is considered the cost driver, what amount of cost will be allocated to Department A?	Rs. 15,000	Rs. 64,000	Rs. 72,000	Rs. 40,000
45	Which of the following is not suitable for a JIT production system?	Batch production	Jobbing production	Process production	Service production
46	JIT relates to:	Time Management	Inventory and product handling	Delivery systems	None of the above
47	Glasso, a manufacturer of large windows, is experiencing a bottleneck in its plant. Setup time at one of its workstations has been identified as the culprit. A manager has proposed a plan to reduce setup time at a cost of Rs. 7,20,000. The change will result in 800 additional windows. The selling price per window is Rs. 18,000, direct labour costs are Rs. 3000 per window, and the cost of direct materials is Rs. 7,000 per window. Assume all units produced can be sold. The change will result in an increase in the throughput contribution of ………………	Rs. 64,00,000	Rs. 88,00,000	Rs. 56,80,000	Rs. 1,44,00,000
48	Cost per unit under throughput accounting and marginal costing are mainly different because:	Labour is not considered in throughput accounting	Direct labour is considered fixed in throughput accounting	Total cost is considered in throughput accounting	Variable cost is considered in marginal costing

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49	Ankit Ltd., operates throughput accounting system. The details of product A per unit are as under: Selling Price: Rs. 75 Material Cost: Rs. 30 Conversion Cost: Rs. 20 Time to bottleneck resources: 10 minutes What is the throughput contribution per bottleneck resource per hour?	Rs. 270	Rs. 150	Rs. 120	Rs. 90
50	Producing more non-bottleneck output:	Creates more inventory, but does not increase throughput contribution	Creates more inventory and increases throughput contribution	Creates less pressure for the bottleneck workstations	Allows for the maximization of overall contribution
51	Twin Ltd. uses JIT and back flush accounting. It does not use a raw material stock control account. During September 2023, 10000 units were produced and sold. The standard cost per unit is Rs. 150 which includes materials of Rs. 60. During September 2023, Rs. 9,90,000 of conversion costs were incurred. The debit balance in cost of goods sold account for September 2023 is:	Rs. 14,00,000	Rs. 14,80,000	Rs. 15,90,000	Rs. 16,20,000
52	The companies that would benefit from back-flush costing include companies:	Which have fast manufacturing lead time	Whose inventory vary from period to period	Companies that require audit trails	None of these
53	Bench marking is:	A continuous process	The practice of setting targets using external information	Method to provide performance assessment	All of the above
54	Kanban Japanese System under JIT approach ensures that:	Continuous supply of inventory or product	Minimum & maximum level of stock to be maintained	Inventory valuation	All of the above
55	The information relating to the direct material cost of a company is as follows: Standard price per unit: Rs. 7.20 Actual quantity purchased in units: 1600 Standard quantity allowed for actual production in units: 1450 Material price variance on purchase (Favourable): Rs. 480 What is the actual purchase price per unit?	Rs. 7.50	Rs. 6.40	Rs. 6.5	Rs. 6.90

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56	In a factory where standard costing system is followed, the production department consumed 1100 kgs of a material @ Rs. 8 per kg for product X resulting in material price variance of Rs. 2200 (Fav) and material usage variance of Rs. 1000 (Adv). What is the standard material cost of actual production of product X?	11,000	20,000	14,000	10,000
57	AB Ltd. uses standard cost system. The following information pertains to direct labour for Product X for the month of March, 2024: Standard rate per hour = Rs. 8 Actual rate per hour = Rs. 8.40 Standard hours allowed for actual production = 2000 hours Labour Efficiency variance = Rs. 1,600 (Adverse) What were the actual hours worked?	1,800	1,810	2,200	2,190
58	Aderholt uses activity-based costing to allocate its overheads. The budgeted cost/ expected for the Supervisor cost pool was: Budgeted units: 5,000 Number of employees: 75 Budgeted Cost: Rs. 7,500 The actual costs incurred were: Actual Units: 5,500 Actual Employees: 77 Actual cost: Rs. 8,085 What was the total variance for the pool?	Rs. 585 Adverse	Rs. 165 Favourable	Rs. 5550 Favourable	Rs. 385 Adverse
59	The following figures are extracted from the books of a company: Budgeted O/H Rs. 10,000 (Fixed Rs. 6,000, Variable Rs. 4,000) Budgeted Hours 2000 Actual O/H Rs. 10,400 (Fixed Rs. 6,100, Variable Rs. 4,300) Actual Hours 2100 Variable O/H cost variance and Fixed O/H cost variance will be:	100 (A) and 200 (A)	100 (F) and 200 (F)	100 (A) and 200 (F)	200 (A) and 100 (F)

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60	A company uses standard absorbing costing. The following information is recorded by the company for October: Budgeted - Output and sales: 8,700 Selling Price per unit: Rs. 26 Variable Cost per unit: Rs.10 Total Fixed Overheads: Rs. 34800 Actuals - Output and sales: 8,200 Selling Price per unit: Rs.31 Variable Cost per unit: Rs.10 Total Fixed Overheads: Rs. 37000 The sales price variance for October was:	38,500 (A)	38,500 (F)	41,000 (A)	41,000 (F)
61	Which of the following may be the cause of Material Price Variance?	Change in quantity of purchase or uneconomical size of purchase order	Failure to take advantage of off-season price or failure to purchase when price is cheaper	Change in basic purchase price of material	All of the above
62	Variance analysis involves breaking down and analysing the total variance to explain:	How much of the variance is caused by using the resources that are different from the standards, i.e., the quantity variance	How much of the variance is caused by using the cost of the resources being different from the standards, i.e., the rate variance	All of the Above	None of the above
63	standard costing system consists of the following key elements:	Setting standards for each of the operations	Comparing the actual performance with the standard performance	Analyzing and reporting variances arising from the difference between actual and standard performance	All of the Above

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64	Which of the following statements is correct?	Standard costing facilitates the integration of accounts so that reconciliation between cost accounts and financial accounts may be eliminated	Standard costs are planned costs determined on a scientific basis and they are based upon certain assumed conditions of efficiency and other factors	Standard costing is defined as the preparation and use of standard cost, their comparison with actual cost and the measurement and analysis of variances to their cause and points of incidence	All of the Above
65	Which of the following statements is true?	If the actual cost is more than the standard, we call it adverse variance and if the difference is less than the standard, we call it favourable variance.	In case of sales and profit, if the standard is more than actual, it is adverse variance and if the standard is less than the actual, it is favourable variance	Both (1) and (2)	None of the above
66	Standard cost and budgeted cost are:	Interrelated but not interdependent	Interdependent but not interrelated	Interrelated and interdependent	None of the above
67	Efficiency Ratio is:	Available working days ÷ Budgeted working days × 100	Budgeted hours ÷ Maximum hours in budgeted period × 100	Standard hours ÷ Actual hours × 100	None of the above
68	Uniform Costing may not be successfully applied in the following case:	In a single enterprise having a number of branches, each of which manufactures the same set of products with the same facilities	In a number of entities in the same industry bound by a trade association	In a number of units across different geographical locations manufacturing one or more of a given set of products	In different branches of the same company, each branch making a different product using a unique process

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69	A constraint in an L.P. Model restricts:	Value of the Objective Function	Values of the Decision Variables	Use of the available resources	All the above
70	A feasible solution of LPP –	Must satisfy all the constraints simultaneously.	Need not satisfy all the constraints, only some of them.	Must be a corner point of the feasible region	All the above.
71	The Objective Function of a LPP is Z = 3x_1+ 2x_2 . If x_1= 10 and x_2= 5 then the value of Z is –	35	40	45	50
72	Multiple solution exist in a Linear Programming problem when –	One of the constraints is redundant	Objective Function is parallel to one of the constraints	Two constraints are parallel	All of the above
73	The linear function of the variables which is to be optimized is called –	Constraints	Objective Function	Decision variables	None of the above
74	If the value of the Objective Function can be increased or decreased indefinitely then the solution is called –	Unbounded	Bounded	Infeasible	None of the above
75	The best use of Linear Programming is to find the optimal use of –	Manpower	Material	Money	All of the above
76	Which of the following is assumption of Linear Programming Model?	Divisibility	Proportionality	Additivity	All of the above
77	Which of the following considers difference between least cost and the cost just before least for each row and column while finding Basic Feasible Solution in Transportation?	North West Corner Method	Least Cost Method	Vogel's Approximation Method	Both (b) and (c) above
78	When the total allocation of a Transportation Problem match with supply and demand values, the solution is –	Non-degenerate	Feasible	Degenerate	None of the above
79	The solution to a Transportation Problem with 'm' sources and 'n' destinations is feasible if the number of cell allocations are –	m + n	mn	m – n -1	m + n – 1
80	To resolve Degeneracy in the solution of a Transportation Problem an infinitely small allocation is made to the solution already obtained. This allocation is known as –	Dummy	Epsilon	ε – the Greek letter	All of the above except (a)
81	Which of the following is not correct with respect to Transportation as a tool of Quantitative Technique?	Transportation technique is a special case of LP.	Transportation technique might give rise to solutions which are degenerate.	No Transportation problem can be given with supply ≠ demand.	Using Transportation technique one can maximize an Objective Function.

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82	Which of the following method is used to test optimality of a solution in Transportation?	Modified Distribution	Simplex	VAM	LCM
83	In a solution of Transportation problem, empty cells are called –	Unoccupied cells	Unallocated cells	Empty cells	All of the above
84	The Transportation Problem deals with the transportation of –	Single product from a source to several destinations	Several products from a source to a destination.	Single product from several sources to a destination.	Single product from several sources to several destinations.
85	Which of the following methods is used to solve the Assignment problems?	Stepping Stone Method	Hungarian Method	North West Corner Method	Vogel's Approximation Method
86	Assignment of work to men and machines is known as:	Scheduling	Loading	Balancing of Line	None of these
87	In an Assignment matrix of size (5×5), the total number of decision variables in the objective function is –	10	5	25	15
88	An Assignment problem is solved to minimise the total time required to complete three jobs on three different machines such that each job is processed by exactly one machine and each machine processes exactly one job. The minimum total processing time is found to be 480 minutes. After a few days of operation, there has been a change in the design of the second job. Due to this, the processing time of the second job is increased by 15 minutes in either of the machines. The revised minimum total processing time will be –	495 minutes	465 minutes	480 minutes	None of these
89	Assignment problem can be considered as a particular case of -	Transportation problem	Sequencing problem	Queuing problem	All of these
90	Dummy row or column is added in an assignment problem –	To prevent a solution to become degenerate	To reduce the total cost of assignment	To increase the profit function	To balance total activities and total resources
91	While solving an assignment problem, an activity is assigned to a resource with zero opportunity cost because objective is to –	Reduce total cost of assignment to zero	Reduce cost of that assignment to zero	Minimise total cost of assignment	Maximise total cost of assignment
92	In an assignment problem –	First activity is assigned to first resource	Any number of activities can be assigned to each resource	It depends on how many resources are available	Only one activity be assigned to each resource
93	An assignment problem can be viewed as a special case of transportation problem in which the capacity from each source is _____ and the demand at each destination is _____.	Unlimited, unlimited	One, unlimited	One, one	Unlimited, one
94	In marking assignments which of the following should be preferred?	Only row having single zero	Only column having single zero	Column having more than one zero	Only row / column having single zero
95	The assignment matrix is always a _____	Rectangular matrix	Identity matrix	Square matrix	None of these

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96	Maximisation assignment problem is transformed into a minimisation problem by _____	Adding each entry of a column to the maximum value of that column	Subtracting each entry in a column from maximum value in that column	Subtracting each entry of the table from the maximum value of the table	Adding each entry of the table to the maximum value in the table
97	In the Hungarian Method of solving Assignment problem, the row reduction is obtained by	Dividing each row by the elements of the row above it	Subtracting the elements of the row from the elements of the row above it	Subtracting the smallest element from all other elements of the row	Subtracting all the elements of the row from the highest element in the matrix
98	The horizontal and vertical lines drawn to cover all zeros of the total opportunity matrix for an optimal solution must be –	Equal to m x n, where m = No. of rows & n = No. of columns	Equal to each other	Equal to m + n, where m = No. of rows & n = No. of columns	Equal to the Order of the matrix
99	The similarity between Assignment Problem and Transportation Problem is –	Both are rectangular matrices	Both are square matrices	Both can be solved by graphical method	Both have objective function and non-negativity constraints
100	When we try to solve the Assignment problem by Transportation algorithm the following difficulty arises.	There will be a tie while making allocations	The problem will get alternate solution	The problem degenerates and we have to use epsilon to solve degeneracy	The Assignment problem cannot be solved by Transportation algorithm
101	The following character dictates that the Assignment matrix is a square one:	The allocations in Assignment problem are one to one	Because we find row opportunity cost matrix	Because we find column opportunity cost matrix	Because after making allocations, horizontal and vertical lines are to be drawn
102	An Assignment problem can be solved by –	Simplex method	Transportation method	Both (1) and (2)	None of the above
103	If there are n jobs and n workers, there would be –	n! solutions	(n – 1)! solutions	(n!).n solutions	n solutions
104	The Assignment problem:	Requires that only one activity be assigned to each resource	Is a special case of Transportation problem	Can be used to maximise the resources	All of the above
105	To proceed with the MODI algorithm for solving an assignment problem, the number of dummy allocations need to be added are –	n	n -1	2n	2n – 1
106	The procedure used to solve Assignment problems wherein one reduces the original assignment costs to a table of opportunity costs is called _____	Stepping Stone Method	Matrix Reduction	MODI Method	Northwest Reduction
107	When a maximisation assignment problem is converted to minimisation problem, the resultant matrix is called:	Cost matrix	Profit matrix	Regret matrix	Dummy matrix

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108	Two person zero sum game means that:	The sum of losses of one player is equal to the sum of the gains of the other	The sum of losses of one player may not be equal to the sum of the gains of the other	No player gains or loses	None of the above
109	Game theory models are classified by the:	Number of players	Sum of all payoffs	Number of strategies	All of these
110	A game is said to be unfair if:	Upper and lower values of the game are not equal	Upper and lower values of the game are equal and the sum is zero	Both option (a) and option (b)	None of the above
111	What happens when the maximin and minimax values of the game are equal?	No solution exists	Solution is mixed	Saddle point exists	None of these
112	A mixed strategy game can be solved by:	Arithmetic method	Graphical method	Dominance method	All of these
113	The size of the payoff matrix of a game can be reduced by using the principle of:	Game inversion	Rotation reduction	Dominance	Game transpose
114	The payoff value for which each player in a game always selects the same strategy is called the:	Saddle point	Equilibrium point	Both option (a) and option (b)	None of the above
115	Games which involve more than two players are called:	Conflicting games	Negotiable games	N person game	All of these
116	Which of the following is first step for performing Simulation analysis?	Choose input variables.	Create entities for the simulation process.	Prepare a problem statement.	Determine the output variables.
117	Which of the following are the advantages of using Modelling and Simulation?	Easy to understand.	Easy to test.	Easy to upgrade.	All of the above.
118	Which one of the following is not an application area of Modelling and Simulation?	Military applications	Designing semiconductors	Telecommunications	Food industry
119	Which of the following is the first step for developing the Simulation Model?	Design the problem	Identify the problem.	Collect and start processing the system data	Develop the model using Network diagram.
120	Simulation is the process of using a model to study the performance of a system.	Agreeable	Not agreeable	Partly agreeable	Cannot comment
121	Disadvantage of using Modelling and Simulation lies in the statement –	Simulation requires manpower and it is a time consuming process.	Simulation results are difficult to translate and only experts can understand it.	Simulation is an expensive process.	All of the above.
122	Monte Carlo Simulation gets its name from which of the following?	Data collection.	Model formulation	Random number assignment	Analysis
123	Select the valid reasons for using Simulation.	Relationship between the variables is non-linear.	Optimized solutions are obtained.	Conduct experiment without disrupting the real system.	Both (a) and (c)

SL NO	QUESTIONS	OPTION 1	OPTION 2	OPTION 3	OPTION 4
124	The drive up window of a fast food centre was being studied using simulation for a variety of operating characteristics. As part of the study data was collected on Customer Arrivals as given in the following table. Using expected value calculations determine the expected time between customer arrivals.Inter arrival time (Minutes) 0.5 1.0 2.0 3.0 4.0 5.0 6.0 Probability 0.10 0.25 0.20 0.30 0.05 0.05 0.05	2.35 minutes	2.00 minutes	2.70 minutes	1.65 minutes
125	Critical Activities have:	Maximum float	Minimum float	Zero float	Negative float
126	In PERT Chart, the Activity time distribution is -	Normal	Binomial	Poisson	Beta
127	A PERT Network has nine activities on its Critical Path. The Standard Deviation of each activity on the Critical Path is 3. The S. D of the Critical Path is –	3	9	81	27
128	For an activity the pessimistic, most likely and optimistic times are respectively 10, 6 and 2 days. The expected duration of the activity is –	6 days	3 days	2 days	9 days
129	The time by which the activity completion time can be delayed without affecting the start of the succeeding activities is known as –	Total float	Free float	Independent float	Head slack
130	Which of the following statement is not true?	PERT is deterministic in nature.	CPM is probabilistic in nature.	PERT Network can not be crashed.	All of the above.
131	Following data refers to a project Network. What will be the Critical Path? Activity 1 – 2, 2 – 3 ,3 – 4, 1 – 4, 2 – 5, 3 – 5, 4 – 5 Duration 2 Days, 1 Day, 3 Days, 3 Days, 3 Days, 2 Days, 4 Days	1 – 2 – 3 - 5	1 – 2 – 3 – 4 – 5	1 – 4 – 5	1 – 4 – 3 – 5
132	The amount of time by which an activity can be delayed without affecting the project completion is called –	Free float	Total float	Interfering float	None of the above
133	Optimistic time and pessimistic time of an activity are respectively 4 days and 16 days. Variance of the duration of the activity will be –	4 days	2 days	3 days	None of the above
134	In a project planning Free float can affect which of the following?	Succeeding activity	Only that activity	Preceding activity	All of the above
135	Solution of problems of Crashing has to be started by applying the technique on –	Any activity of the Network.	Non critical activities	Critical activities.	None of the above.
136	A PERT activity has an optimistic time of 3 days, pessimistic time of 15 days and an expected time of 7 days. What is the most likely time of the activity?	10 days	6 days	5 days	None of the above
137	The reduction in project time normally results in –	Decrease in Direct Cost and increase in Indirect Cost	Increase in Direct Cost and decrease in Indirect Cost	Increase in both Direct and Indirect Costs.	Decrease in both Direct and Indirect Costs.

SL NO	QUESTIONS	OPTION 1	OPTION 2	OPTION 3	OPTION 4
138	The Normal duration and Normal cost of an activity are 10 days and Rs. 350 respectively. The cost slope is Rs. 75 per day. If the Crash duration is 8 days then what is the Crash cost of the activity?	Rs. 400/-	Rs. 500/-	Rs. 600/-	Rs. 650/-
139	Which of the following is incorrect?	PERT is suitable for projects having probabilistic time estimates.	CPM is suitable for projects having deterministic activities.	Both PERT and CPM are event oriented.	PERT is event oriented while CPM is activity oriented.
140	The activity that must be completed prior to the start of an activity is called –	Dummy activity	Successor activity	Concurrent activity	Predecessor activity
141	The slack times of Tail and Head events of Activity P are 10 days and 4 days respectively. If the Free float of the Activity P is 12 days then the Total float would be –	8 days	16 days	22 days	none of the above
142	Which of the following represents reduction in project duration?	Crashing	Negative slack	Variance	All of the above
143	Critical Path Method is good for –	Small projects only	Large projects only	Both small and large projects equally	Neither small nor large projects
144	The optimum duration is the –	Summation of normal durations of each activity of the project.	Summation of normal durations of activities in the Critical Path.	One which gives the minimum Total Cost for the completion of the project.	Summation of crash durations of activities in the Critical Path.
145	Which of the following is not a notable challenge while scheduling a project?	Deadlines exist	Independent activities	Too many workers may be required	Costly delay
146	A critical path is –	The shortest path	The longest path	The path that begins from the start node and ends at the last node.	All of the above.
147	Activities A, D and F merges at the event 6. If the earliest finish times of A, D and F are respectively 13, 17 and 8 then the earliest time of Event 6 is –	8	13	17	Cannot be determined from the given information.
148	A Learning Curve describes:	The increase in number of units produced per unit time as the total number of units produced increases	The rate at which an organisation acquires new information.	The amount of production time per unit as the total number of units produced increases.	The increase in production time as the total number of units produced increases.
149	Limitations of the Learning Curve approach include –	Learning Curves must be redeveloped whenever the product or the production process is modified.	Learning Curves are applicable when considering a highly automated process.	Learning Curves are only valid when considering simple production process.	Learning Curves are only valid when the total number of units produced is relatively small.

SL NO	QUESTIONS	OPTION 1	OPTION 2	OPTION 3	OPTION 4
150	Which of the following statements about Learning Curve is incorrect?	A change in the process disrupts the Learning Curve.	The rate of learning varies depending on the quality of management.	The Learning Curve can be disrupted by the change in personnel.	Learning Curves show that the time saved in completing each subsequent unit increases.
151	Which of the following is not an application of Learning Curve?	Learning Curves allow a manager to predict the time required for new employee orientation on company policies and procedures.	Learning Curves permit a manager to prepare a work schedule.	Learning Curves allow a manager to forecast the labour requirements while preparing a departmental employee budget.	Learning Curves can be employed in supply chain negotiations.
152	Bimal and Kamal are the two industrial workers engaged in doing a similar job. They have different learning rates of 80% and 90% respectively. Times taken to complete their first jobs are respectively 12 and 8 hours. If both continue with the same learning rate then after how many units Bimal will be faster than Kamal?	5th unit	7th unit	11th unit	19th unit
153	How long will it take to produce the fifth unit with 85% learning rate, if the third unit took 13 hours?	10.3 hours	10.0 hours	11.4 hours	11.5 hours
154	When 24 hours is required to produce a condenser of a particular type then the time required to produce the 16th unit with 85% Learning Curve is –	Between 9 and 10 hours	Between 12 and 14 hours	Between 15 and 17 hours	Between 18 and 20 hours
155	A diesel engine manufacturing company has an order of 4 large engines. A crew of 16 members took 4000 hours to assemble the first engine. If 80% Learning Curve is used then what will be the labour cost of the fourth engine, assuming average labour rate to be Rs. 180 per hour?	Between Rs. 4 to 4.5 Lakhs	Between Rs. 3.5 to 4 Lakhs	Between Rs. 3 to 3.5 Lakhs	Between Rs. 4.5 to 5 Lakhs
156	Optimization is the method of finding:	The maximum point	The minimum point	The critical point	All of the above
157	Choose the correct answer:	Optimization problems should have only one objective function	Constraint functions are compulsory for any optimization problem.	Objective function must be a continuous function	None of the above
158	The process of finding relative maximum or minimum of a function is known as:	Optimization	Maximization	Minimization	Any of these
159	For a Cost Function TC = 3 Q^2 7Q + 12, MC is –	6Q	6Q + 7	3Q + 12	None of the above
160	MR is:	First order derivative of TC	Second order derivative of TR	First order derivative of TR	Second order derivative of TC

SL NO	QUESTIONS	OPTION 1	OPTION 2	OPTION 3	OPTION 4
161	In the expression $D = AC - B^2$ used for describing the sufficient conditions for unconstrained optimization involving two variables (x and t), the meaning of A and C are –	2nd order partial derivative of the objective function (f) with respect to x and y respectively.	2nd order partial derivative of $\partial f/\partial x$ with respect to y	Both (a) and (b)	none of the above
162	A price discriminating Monopolist Firm operates in –	Such a Market where it is the sole supplier.	More than one Market	Markets where it sells same product but in different prices.	All of the above.
163	For a dual plant Monopolist Firm with respective production costs C1 & C2 in the two plants, the necessary condition of equilibrium is:	$MC_1 = MC_2 \neq MR$	MC = MR	$MC_1 = MC_2 = MR$	$MC_1 = MR_1$ & $MC_2 = MR_2$
164	In Exponential Smoothing Method which one of the following is true?	$0 \leq \alpha \leq 1$ and high value of α is used for stable demand.	$0 \leq \alpha \leq 1$ and high value of α is used for unstable demand.	$\alpha \geq 1$ and high value of α is used for stable demand.	$\alpha \leq 0$ and high value of α is used for unstable demand.
165	Which of the following is not a Casual Forecasting Method?	Trend adjusted Exponential Smoothing	Econometric models	Linear Regression	Multiple Regression
166	In a Time Series forecasting model, the demands for five time periods are 10, 13, 15, 18 and 22. A linear regression fit resulted in the equation y = 6.9 + 2.9t, where y is the forecast for the period t. The sum of the absolute deviations for the five data with respect to their corresponding forecasts (taking t = 1 for the first one) is;	2.3	0.2	1	2.2
167	Which of the following is not a forecasting technique?	Trend line estimate	Delphi Method	Hungarian Method	Judgemental technique
168	In Simple Exponential Smoothing forecast, to give higher weightage to recent demand information, the smoothing constant must be close to –	-1	0	0.5	1
169	A linear Trend equation has the form –	F = a - bt	F = a + bt	F = 2a – bt	F = 2a + bt
170	The actual demand for a period is 100 units. But forecast demand was 90 units. The forecast error is –	– 10	10	₹ 5	None of the above
171	If the estimate of the Trend Component is 158.2, the estimate of Seasonal Component is 94%, the estimate of the Cyclical Component is 105% and the estimate of the Irregular Component is 98%, then the multiplicative model will produce a forecast of –	1.53	1.53%	153.02	15,30,20,532
172	Which of the following is not true for forecasting?	Forecasts are rarely perfect.	The underlying casual system will remain same in the future.	Forecast for group of items is accurate than individual item	Short range forecasts are less accurate than long range forecasts

SL NO	QUESTIONS	OPTION 1	OPTION 2	OPTION 3	OPTION 4
173	Delphi Method is used for –	Judgemental forecast	Time Series forecast	Associative model	All of the above
174	Tableau is a –	Business Intelligence Tool	Visualisation Tool	Both (a) and (b)	None of the above
175	Which of the following statement is correct?	Functioning of ETL Tool is same as that of ELT Tool.	For Data Analytics the purpose of ETL Tool is same as that of ELT Tool.	Both (a) and (b)	None of the above
176	Which of the following statement is incorrect?	Microsoft Excel is most popular among all the available spreadsheets.	Zoho Analytics is a tool used for Financial Data analysis.	Visualisation Tools are the Reporting Tools.	None of the above.
177	Prescriptive Analytics is very important because –	It tells about the action to be taken.	It tells about what is likely to happen	It tells about how something has happened.	It tells about what has happened.
178	Which of the following has no relation to Business Intelligence?	A set of business analytics solutions to retrieve, analyse and transform data into useful business sights	Visualisation Tools are primarily BI Tools.	ABS Glue is a tool used for the purpose of Business Intelligence.	Embedded Analytics is an important part of any Business Intelligence tool.
179	Which of the following is related to Financial Data Analytics?	Value driver analytics	Financial ratio analytics	Predictive sales analysis	All the above
180	Analysis of a dataset has revealed the fact that profit of a business has reduced for the financial year 2021-22. What category of data analytics it comes under?	Descriptive Analytics	Predictive Analytics	Diagnostic Analytics	Prescriptive Analytics
181	#Script Ends – is related to which type of programming language?	R Programming	SAS	Python	SPSS
182	Which one of the following is a Key feature of SAS language?	Capability of handling data analysis related to Operations Research and Project Management.	Capability of report formation with perfect graphs.	Capability to interact with multiple host systems	All the above
183	Which one of the following is not a spreadsheet?	Google Sheets	MS Excel	E-views	Quip

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

STRATEGIC COST MANAGEMENT (PAPER - 16)
ANSWERS TO MCQ BANK

SL NO	QUESTIONS	CORRECT ANSWER
1	Which of the following is not a primary activity of Value Chain?	Infrastructure
2	Which of the following is not a secondary activity of Value Chain?	Service
3	Which of the following is not a term normally used in value analysis?	Resale value
4	A company has forecast sales and cost of goods sold for the coming year as Rs. 25 lakhs and Rs. 18 lakhs respectively. The inventory turnover has been taken as 9 times per year. In case the inventory turnover increases to 12 times and the short-term interest rate on working capital is taken as 10%, what will be the saving in cost?	Rs. 5,000
5	Which of the following important pillars of Strategic Cost Management determines the company's comparative position in the industry in terms of performance?	Strategic Positioning Analysis
6	_____ is defined as the real and permanent reduction in the unit costs of goods manufactured or services rendered without impairing their suitability for the use intended.	Cost reduction
7	There are three core areas to consider when developing the supply chain strategy and business case. These are:	People, Process & Systems
8	TQM stands for:	Total Quality Management
9	Four Ps of Total Quality Management:	People, Process, Problem & Preparation
10	PRAISE stands for:	Problem Identification, Ranking, Analysis, Innovation, Solution & Evaluation
11	DMIADV is a methodology associated with:	Six Sigma
12	Pareto analysis recognizes:	80:20 Rule
13	Cost of Rework is a cost related to:	Internal failure
14	The cost incurred to ensure that failures do not happen:	Prevention cost
15	The break-even point of a manufacturing company is Rs.1,60,000. Fixed cost is Rs.48,000. Variable cost is Rs.12 per unit. The PV ratio will be:	30%
16	The higher the actual hours worked:	The higher the capacity utilization ratio
17	XYZ Ltd. has the following alternative planned activity levels: Total cost (Rs.): 1,00,000 (Level E) 1,50,000 (Level F) 2,00,000 (Level G) No. of units produced: 5,000 (Level E) 10,000 (Level F) 15,000 (Level G) If fixed overhead remains constant, then fixed overhead cost per unit at Level E is:	Rs. 10
18	T Ltd. produces and sells a product. The company expects the following revenues and costs in 2024: Revenues (400 sets sold @ Rs.600 per product) = Rs. 2,40,000 Variable costs = Rs. 1,60,000 Fixed costs = Rs. 50,000 What amount of sales must T Ltd. have to earn a target net income of Rs.63,000 if they have a tax rate of 30%?	Rs. 4,20,000
19	Excel Products Ltd. manufactures four products e.g. Product E, Product F, Product G and Product H using same raw materials. The input requirements for Products E, F, G and H are 1kg, 2kgs, 5kgs and 7kgs, respectively. Product-wise Selling Price and Variable Cost data are given hereunder: Selling Price of Products E, F, G & H are Rs.100, Rs.150, Rs.200 & Rs.300 respectively and variable costs are Rs.50, Rs.70, Rs.100 & Rs.125 respectively. Assuming raw material availability is a limiting factor, the correct ranking of the products would be:	E, F, H & G
20	A company has a breakeven point when sales are Rs. 3,20,000 and variable cost at that level of sales are Rs. 2,00,000. How much would p/v ratio increase or decrease if variable expenses are dropped by Rs.30,000?	Increase by 9.375%
21	The Tech Company has fixed costs of Rs.400,000 and variable costs are 75% of the selling price. To realize profits of Rs.100,000 from sales of 5,00,000 units, the selling price per unit:	must be Rs.4.00
22	A company makes components and sells internally to its subsidiary and also to external market. The external market price is Rs.24 per component, which gives a contribution of 40% of sales. For external sales, variable costs include Rs.1.50 per unit for distribution costs. This is, however not incurred in internal sales. There are no capacity constraints. To maximize company profit, the transfer price to subsidiary should be:	Rs. 12.90
23	H Group has two divisions, Division P and Division Q. Division P manufactures an item that is transferred to Division Q. The item has no external market and 6000 units produced are transferred internally each year. The costs of each division: Variable Cost: Rs.100 per unit & Rs.120 per unit for Division P & Q respectively. Fixed cost each year: Rs.1,20,000 & Rs.90,000 for Division P & Q respectively. Head Office management decided that a transfer price should be set that provides a profit of Rs. 30,000 to Division P. What should be the transfer price per unit?	Rs. 125
24	A particular job required 800 kgs of material – P. 500 kgs. of the particular material is currently in stock. The original price of the material – P was Rs.300 but current resale value of the same has been determined as Rs.200. If the current replacement price of the material – P is Rs.0.80 per kg., the relevant cost of the material – P required for the job would be:	Rs. 440
25	What is the opportunity cost of making a component part in a factory given no alternative use of the capacity?	Zero
26	If project A has a net present value (NPV) of Rs.30,00,000 and project B has an NPV of Rs.50,00,000, what is the opportunity cost if project B is selected?	Rs. 30,00,000
27	X Ltd. has 1000 units of an obsolete item which are carried in inventory at the original price of Rs.50,000. If these items are reworked for Rs. 20,000, they can be sold for Rs. 36,000. Alternatively, they can be sold as a scrap for Rs. 6,000 in the market. In a decision model used to analyse the reworking proposal, the opportunity cost should be taken as:	Rs. 6,000

SL NO	QUESTIONS	CORRECT ANSWER
28	The shadow price of skilled labour for SD Ltd. is currently Rs. 10 per hour. What does this mean?	Contribution will be increased by Rs. 10 per hour for each extra hour of skilled labour that can be obtained.
29	A factory can make only one of the three products X, Y or Z in a given production period. The selling price per unit of Product X, Y & Z is Rs.1,500, Rs.1,800 & Rs.2,000 respectively and variable cost per unit is Rs.700, Rs.950 & Rs.1,000 respectively. Assume that there is no constraint on resource utilization or demand and similar resources are consumed by X,Y and Z. The opportunity cost of making one unit of Z is:	Rs. 850
30	A company has 2000 units of an obsolete item which are carried in inventory at the original purchase price of Rs. 30,000. If these items are reworked for Rs.10,000, they can be sold for Rs. 18,000. Alternatively, they can be sold as scrap for Rs.3,000 in the market. In a decision model used to analyse the reworking proposal, the opportunity cost should be taken as:	Rs. 3,000
31	TM Company can make 100 units of a necessary component part with the following costs: Direct Materials - Rs.60,000 Direct Labour - Rs.10,000 Variable Overhead - Rs.30,000 Fixed Overhead - Rs.20,000 TM Company can purchase the component externally for Rs.1,10,000 and only Rs.5,000 of the fixed costs can be avoided, what is the correct make-or-buy decision?	Make and Save Rs.5000
32	AP Products sells product A at a selling price of Rs.40 per unit. AP's cost per unit based on the full capacity of 5,00,000 units is as follows Direct Materials - Rs.6 Direct Labour - Rs.3 Indirect Manufacturing Expense 60% of which is fixed - Rs.10 A one-time only special order offering to buy 50,000 units was received from an overseas distributor. The only other costs that would be incurred on this order would be Rs. 4 per unit for shipping. AP has sufficient existing capacity to manufacture the additional units. In negotiating a price for the special order, AP should consider that the minimum selling price per unit should be:	Rs. 17
33	In cost plus pricing, the markup consist of:	Desired ROI
34	MN paid Rs. 5,30,000 for a machine used to powder wheat. The machine can be sold for Rs. 1,30,000. The sale value of wheat is Rs. 8,00,000 and its variable cost is Rs. 4,00,000. The opportunity cost of producing wheat flour is:	Rs.1,30,000
35	A Ltd. Plans to introduce a new product and issuing the target cost approach. Projected sales revenue is Rs. 90,00,000 (Rs. 45 per unit) and target costs are Rs. 64,00,000. What is the desired profit per unit?	Rs. 13
36	Target costing is the answer to:	Market driven prices
37	The product of XYZ company is sold at a fixed price of Rs. 1,500 per unit. As per company's estimate, 500 units of the product are expected to be sold in the coming year. If the value of investments of the company is Rs. 15 lakhs and it has a target ROI of 15%, the target cost would be:	Rs. 1050
38	A company has the capacity of producing 80000 units and presently sells 20000 units at Rs. 100 each. The demand is sensitive to selling price and it has been observed that with every reduction of Rs. 10 in selling price the demand is doubled. What should be the target cost if the demand is doubled at full capacity and profit margin on sale is taken at 25%?	Rs.60
39	120 units of semi-conductors are required to be sold to earn a profit of Rs.1,00,000 in a monopoly market. The fixed cost for the period is Rs.80,000. The contribution in the monopoly market is as high as 3/4th of its variable cost. Determine the target selling price per unit.	Rs.3500
40	Cost Driver is:	Elements that would cause a change in the cost activity.
41	ABC Management:	All of the above
42	Process of Cost allocation under Activity Based Costing is:	Activities → Cost of Activities → Cost Driver → Cost allocated to cost objects
43	P operates an activity-based costing (ABC) system to attribute its overhead costs to cost objects. In its budget for the year ending 31st March 2022, the company expected to place a total of 2,895 purchase orders at a total cost of Rs. 1,10,010. This activity and its related costs were budgeted to occur at a constant rate throughout the budget year, which is divided into 13 four-week periods. During the four-week period ended 30 June 2021, a total of 210 purchase orders were placed at a cost of Rs. 7,650. The over- recovery of these costs for the four-week period was:	Rs. 330
44	At KL Company, cost of personnel department has always been charged to production department based upon number of employees. Recently, opinion gathered from the department managers indicate that number of new hires might be better predictor of personnel cost, Total personnel department cost are Rs. 2,00,000. Department A B C Number of employees 30 270 100 The number of new hires 8 12 5 If number of new hires is considered the cost driver, what amount of cost will be allocated to Department A?	Rs. 64,000
45	Which of the following is not suitable for a JIT production system?	Batch production
46	JIT relates to:	Inventory and product handling
47	Glasso, a manufacturer of large windows, is experiencing a bottleneck in its plant. Setup time at one of its workstations has been identified as the culprit. A manager has proposed a plan to reduce setup time at a cost of Rs. 7,20,000. The change will result in 800 additional windows. The selling price per window is Rs. 18,000, direct labour costs are Rs. 3000 per window, and the cost of direct materials is Rs. 7,000 per window. Assume all units produced can be sold. The change will result in an increase in the throughput contribution of ………………	Rs. 88,00,000
48	Cost per unit under throughput accounting and marginal costing are mainly different because:	Direct labour is considered fixed in throughput accounting

SL NO	QUESTIONS	CORRECT ANSWER
49	Ankit Ltd., operates throughput accounting system. The details of product A per unit are as under: Selling Price: Rs. 75 Material Cost: Rs. 30 Conversion Cost: Rs. 20 Time to bottleneck resources: 10 minutes What is the throughput contribution per bottleneck resource per hour?	Rs. 270
50	Producing more non-bottleneck output:	Creates more inventory, but does not increase throughput contribution
51	Twin Ltd. uses JIT and back flush accounting. It does not use a raw material stock control account. During September 2023, 10000 units were produced and sold. The standard cost per unit is Rs. 150 which includes materials of Rs. 60. During September 2023, Rs. 9,90,000 of conversion costs were incurred. The debit balance in cost of goods sold account for September 2023 is:	Rs. 15,90,000
52	The companies that would benefit from back-flush costing include companies:	Which have fast manufacturing lead time
53	Bench marking is:	All of the above
54	Kanban Japanese System under JIT approach ensures that:	Continuous supply of inventory or product
55	The information relating to the direct material cost of a company is as follows: Standard price per unit: Rs. 7.20 Actual quantity purchased in units: 1600 Standard quantity allowed for actual production in units: 1450 Material price variance on purchase (Favourable): Rs. 480 What is the actual purchase price per unit?	Rs. 6.90
56	In a factory where standard costing system is followed, the production department consumed 1100 kgs of a material @ Rs. 8 per kg for product X resulting in material price variance of Rs. 2200 (Fav) and material usage variance of Rs. 1000 (Adv). What is the standard material cost of actual production of product X?	10,000
57	AB Ltd. uses standard cost system. The following information pertains to direct labour for Product X for the month of March, 2024: Standard rate per hour = Rs. 8 Actual rate per hour = Rs. 8.40 Standard hours allowed for actual production = 2000 hours Labour Efficiency variance = Rs. 1,600 (Adverse) What were the actual hours worked?	2,200
58	Aderholt uses activity-based costing to allocate its overheads. The budgeted cost/ expected for the Supervisor cost pool was: Budgeted units: 5,000 Number of employees: 75 Budgeted Cost: Rs. 7,500 The actual costs incurred were: Actual Units: 5,500 Actual Employees: 77 Actual cost: Rs. 8,085 What was the total variance for the pool?	Rs. 165 Favourable
59	The following figures are extracted from the books of a company: Budgeted O/H Rs. 10,000 (Fixed Rs. 6,000, Variable Rs. 4,000) Budgeted Hours 2000 Actual O/H Rs. 10,400 (Fixed Rs. 6,100, Variable Rs. 4,300) Actual Hours 2100 Variable O/H cost variance and Fixed O/H cost variance will be:	100 (A) and 200 (F)
60	A company uses standard absorbing costing. The following information is recorded by the company for October: Budgeted - Output and sales: 8,700 Selling Price per unit: Rs. 26 Variable Cost per unit: Rs.10 Total Fixed Overheads: Rs. 34800 Actuals - Output and sales: 8,200 Selling Price per unit: Rs.31 Variable Cost per unit: Rs.10 Total Fixed Overheads: Rs. 37000 The sales price variance for October was:	41,000 (F)
61	Which of the following may be the cause of Material Price Variance?	All of the above
62	Variance analysis involves breaking down and analysing the total variance to explain:	All of the Above
63	standard costing system consists of the following key elements:	All of the Above
64	Which of the following statements is correct?	All of the Above
65	Which of the following statements is true?	Both (1) and (2)
66	Standard cost and budgeted cost are:	Interrelated but not interdependent
67	Efficiency Ratio is:	Standard hours ÷ Actual hours × 100
68	Uniform Costing may not be successfully applied in the following case:	In different branches of the same company, each branch making a different product using a unique process
69	A constraint in an L.P. Model restricts:	All the above

SL NO	QUESTIONS	CORRECT ANSWER
70	A feasible solution of LPP –	Must satisfy all the constraints simultaneously.
71	The Objective Function of a LPP is $Z = 3x_1 + 2x_2$. If $x_1 = 10$ and $x_2 = 5$ then the value of Z is –	40
72	Multiple solution exist in a Linear Programming problem when –	Objective Function is parallel to one of the constraints
73	The linear function of the variables which is to be optimized is called –	Objective Function
74	If the value of the Objective Function can be increased or decreased indefinitely then the solution is called –	Unbounded
75	The best use of Linear Programming is to find the optimal use of –	All of the above
76	Which of the following is assumption of Linear Programming Model?	All of the above
77	Which of the following considers difference between least cost and the cost just before least for each row and column while finding Basic Feasible Solution in Transportation?	Vogel's Approximation Method
78	When the total allocation of a Transportation Problem match with supply and demand values, the solution is –	Feasible
79	The solution to a Transportation Problem with 'm' sources and 'n' destinations is feasible if the number of cell allocations are –	$m + n - 1$
80	To resolve Degeneracy in the solution of a Transportation Problem an infinitely small allocation is made to the solution already obtained. This allocation is known as –	All of the above except (a)
81	Which of the following is not correct with respect to Transportation as a tool of Quantitative Technique?	No Transportation problem can be given with supply $\neq$ demand.
82	Which of the following method is used to test optimality of a solution in Transportation?	Modified Distribution
83	In a solution of Transportation problem, empty cells are called –	All of the above
84	The Transportation Problem deals with the transportation of –	Single product from several sources to several destinations.
85	Which of the following methods is used to solve the Assignment problems?	Hungarian Method
86	Assignment of work to men and machines is known as:	Loading
87	In an Assignment matrix of size (5×5), the total number of decision variables in the objective function is –	25
88	An Assignment problem is solved to minimise the total time required to complete three jobs on three different machines such that each job is processed by exactly one machine and each machine processes exactly one job. The minimum total processing time is found to be 480 minutes. After a few days of operation, there has been a change in the design of the second job. Due to this, the processing time of the second job is increased by 15 minutes in either of the machines. The revised minimum total processing time will be –	495 minutes
89	Assignment problem can be considered as a particular case of -	Transportation problem
90	Dummy row or column is added in an assignment problem –	To balance total activities and total resources
91	While solving an assignment problem, an activity is assigned to a resource with zero opportunity cost because objective is to –	Minimise total cost of assignment
92	In an assignment problem –	Only one activity be assigned to each resource
93	An assignment problem can be viewed as a special case of transportation problem in which the capacity from each source is _____ and the demand at each destination is _____.	One, one
94	In marking assignments which of the following should be preferred?	Only row / column having single zero
95	The assignment matrix is always a _____	Square matrix
96	Maximisation assignment problem is transformed into a minimisation problem by _____	Subtracting each entry of the table from the maximum value of the table
97	In the Hungarian Method of solving Assignment problem, the row reduction is obtained by	Subtracting the smallest element from all other elements of the row
98	The horizontal and vertical lines drawn to cover all zeros of the total opportunity matrix for an optimal solution must be –	Equal to the Order of the matrix
99	The similarity between Assignment Problem and Transportation Problem is –	Both have objective function and non-negativity constraints
100	When we try to solve the Assignment problem by Transportation algorithm the following difficulty arises.	The problem degenerates and we have to use epsilon to solve degeneracy
101	The following character dictates that the Assignment matrix is a square one:	The allocations in Assignment problem are one to one
102	An Assignment problem can be solved by –	Both (1) and (2)
103	If there are n jobs and n workers, there would be –	n! solutions
104	The Assignment problem:	All of the above
105	To proceed with the MODI algorithm for solving an assignment problem, the number of dummy allocations need to be added are –	n -1
106	The procedure used to solve Assignment problems wherein one reduces the original assignment costs to a table of opportunity costs is called _____	Matrix Reduction
107	When a maximisation assignment problem is converted to minimisation problem, the resultant matrix is called:	Regret matrix
108	Two person zero sum game means that:	The sum of losses of one player is equal to the sum of the gains of the other
109	Game theory models are classified by the:	All of these
110	A game is said to be unfair if:	Upper and lower values of the game are not equal
111	What happens when the maximin and minimax values of the game are equal?	Saddle point exists
112	A mixed strategy game can be solved by:	All of these
113	The size of the payoff matrix of a game can be reduced by using the principle of:	Dominance
114	The payoff value for which each player in a game always selects the same strategy is called the:	Saddle point
115	Games which involve more than two players are called:	N person game
116	Which of the following is first step for performing Simulation analysis?	Prepare a problem statement.
117	Which of the following are the advantages of using Modelling and Simulation?	All of the above.
118	Which one of the following is not an application area of Modelling and Simulation?	Food industry
119	Which of the following is the first step for developing the Simulation Model?	Identify the problem.
120	Simulation is the process of using a model to study the performance of a system.	Agreeable
121	Disadvantage of using Modelling and Simulation lies in the statement –	All of the above.
122	Monte Carlo Simulation gets its name from which of the following?	Random number assignment
123	Select the valid reasons for using Simulation.	Both (a) and (c)

SL NO	QUESTIONS	CORRECT ANSWER
124	The drive up window of a fast food centre was being studied using simulation for a variety of operating characteristics. As part of the study data was collected on Customer Arrivals as given in the following table. Using expected value calculations determine the expected time between customer arrivals.Inter arrival time (Minutes) 0.5 1.0 2.0 3.0 4.0 5.0 6.0 Probability 0.10 0.25 0.20 0.30 0.05 0.05 0.05	2.35 minutes
125	Critical Activities have:	Zero float
126	In PERT Chart, the Activity time distribution is -	Beta
127	A PERT Network has nine activities on its Critical Path. The Standard Deviation of each activity on the Critical Path is 3. The S. D of the Critical Path is –	9
128	For an activity the pessimistic, most likely and optimistic times are respectively 10, 6 and 2 days. The expected duration of the activity is –	6 days
129	The time by which the activity completion time can be delayed without affecting the start of the succeeding activities is known as –	Free float
130	Which of the following statement is not true?	All of the above.
131	Following data refers to a project Network. What will be the Critical Path? Activity 1 – 2, 2 – 3 ,3 – 4, 1 – 4, 2 – 5, 3 – 5, 4 – 5 Duration 2 Days, 1 Day, 3 Days, 3 Days, 3 Days, 2 Days, 4 Days	1 – 2 – 3 – 4 – 5
132	The amount of time by which an activity can be delayed without affecting the project completion is called –	Total float
133	Optimistic time and pessimistic time of an activity are respectively 4 days and 16 days. Variance of the duration of the activity will be –	4 days
134	In a project planning Free float can affect which of the following?	Preceding activity
135	Solution of problems of Crashing has to be started by applying the technique on –	Critical activities.
136	A PERT activity has an optimistic time of 3 days, pessimistic time of 15 days and an expected time of 7 days. What is the most likely time of the activity?	6 days
137	The reduction in project time normally results in –	Increase in Direct Cost and decrease in Indirect Cost
138	The Normal duration and Normal cost of an activity are 10 days and Rs. 350 respectively. The cost slope is Rs. 75 per day. If the Crash duration is 8 days then what is the Crash cost of the activity?	Rs. 500/-
139	Which of the following is incorrect?	Both PERT and CPM are event oriented.
140	The activity that must be completed prior to the start of an activity is called –	Predecessor activity
141	The slack times of Tail and Head events of Activity P are 10 days and 4 days respectively. If the Free float of the Activity P is 12 days then the Total float would be –	16 days
142	Which of the following represents reduction in project duration?	Crashing
143	Critical Path Method is good for –	Large projects only
144	The optimum duration is the –	One which gives the minimum Total Cost for the completion of the project.
145	Which of the following is not a notable challenge while scheduling a project?	Independent activities
146	A critical path is –	The longest path
147	Activities A, D and F merges at the event 6. If the earliest finish times of A, D and F are respectively 13, 17 and 8 then the earliest time of Event 6 is –	17
148	A Learning Curve describes:	The amount of production time per unit as the total number of units produced increases.
149	Limitations of the Learning Curve approach include –	Learning Curves are applicable when considering a highly automated process.
150	Which of the following statements about Learning Curve is incorrect?	Learning Curves show that the time saved in completing each subsequent unit increases.
151	Which of the following is not an application of Learning Curve?	Learning Curves can be employed in supply chain negotiations.
152	Bimal and Kamal are the two industrial workers engaged in doing a similar job. They have different learning rates of 80% and 90% respectively. Times taken to complete their first jobs are respectively 12 and 8 hours. If both continue with the same learning rate then after how many units Bimal will be faster than Kamal?	11th unit
153	How long will it take to produce the fifth unit with 85% learning rate, if the third unit took 13 hours?	11.5 hours
154	When 24 hours is required to produce a condenser of a particular type then the time required to produce the 16th unit with 85% Learning Curve is –	Between 12 and 14 hours
155	A diesel engine manufacturing company has an order of 4 large engines. A crew of 16 members took 4000 hours to assemble the first engine. If 80% Learning Curve is used then what will be the labour cost of the fourth engine, assuming average labour rate to be Rs. 180 per hour?	Between Rs. 4.5 to 5 Lakhs
156	Optimization is the method of finding:	All of the above
157	Choose the correct answer:	Optimization problems should have only one objective function
158	The process of finding relative maximum or minimum of a function is known as:	Optimization
159	For a Cost Function TC = 3 Q^2 7Q + 12, MC is –	6Q + 7
160	MR is:	First order derivative of TR
161	In the expression D = AC – B^2 used for describing the sufficient conditions for unconstrained optimization involving two variables (x and t), the meaning of A and C are –	2nd order partial derivative of the objective function (f) with respect to x and y respectively
162	A price discriminating Monopolist Firm operates in –	All of the above.
163	For a dual plant Monopolist Firm with respective production costs C1 & C2 in the two plants, the necessary condition of equilibrium is:	$MC_1 = MC_2 = MR$
164	In Exponential Smoothing Method which one of the following is true?	$0 \leq \alpha \leq 1$ and high value of α is used for unstable demand.
165	Which of the following is not a Casual Forecasting Method?	Trend adjusted Exponential Smoothing

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

STRATEGIC COST MANAGEMENT (PAPER - 16)
ANSWERS TO MCQ BANK

SL NO	QUESTIONS	CORRECT ANSWER
166	In a Time Series forecasting model, the demands for five time periods are 10, 13, 15, 18 and 22. A linear regression fit resulted in the equation y = 6.9 + 2.9t, where y is the forecast for the period t. The sum of the absolute deviations for the five data with respect to their corresponding forecasts (taking t = 1 for the first one) is;	2.2
167	Which of the following is not a forecasting technique?	Hungarian Method
168	In Simple Exponential Smoothing forecast, to give higher weightage to recent demand information, the smoothing constant must be close to –	1
169	A linear Trend equation has the form –	F = a + bt
170	The actual demand for a period is 100 units. But forecast demand was 90 units. The forecast error is –	10
171	If the estimate of the Trend Component is 158.2, the estimate of Seasonal Component is 94%, the estimate of the Cyclical Component is 105% and the estimate of the Irregular Component is 98%, then the multiplicative model will produce a forecast of –	153.02
172	Which of the following is not true for forecasting?	Short range forecasts are less accurate than long range forecasts
173	Delphi Method is used for –	Judgemental forecast
174	Tableau is a –	Both (a) and (b)
175	Which of the following statement is correct?	For Data Analytics the purpose of ETL Tool is same as that of ELT Tool.
176	Which of the following statement is incorrect?	None of the above.
177	Prescriptive Analytics is very important because –	It tells about the action to be taken.
178	Which of the following has no relation to Business Intelligence?	ABS Glue is a tool used for the purpose of Business Intelligence.
179	Which of the following is related to Financial Data Analytics?	All the above
180	Analysis of a dataset has revealed the fact that profit of a business has reduced for the financial year 2021-22. What category of data analytics it comes under?	Descriptive Analytics
181	#Script Ends – is related to which type of programming language?	Python
182	Which one of the following is a Key feature of SAS language?	All the above
183	Which one of the following is not a spreadsheet?	E-views