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Quantitative Techniques for Management-1

Section Id :	864351673
Section Number :	1
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Number of Questions :	100
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Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	864351896
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 86435116470 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Operation research analysts DO NOT:

1. Predict future operations
2. Build more than one model
3. Collect relevant data
4. Recommend decision and accept.

Options :

86435155907. 1
86435155908. 2
86435155909. 3
86435155910. 4

Question Number : 2 Question Id : 86435116471 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Decision variables are:

1. Uncontrollable
2. Controllable
3. Parameters
4. None of the above

Options :
86435155911. 1
86435155912. 2
86435155913. 3
86435155914. 4

Question Number : 3 Question Id : 86435116472 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A model is/are:

1. An essence of reality
2. An approximation
3. An idealization
4. All of the above

Options :
86435155915. 1
86435155916. 2
86435155917. 3
86435155918. 4

Question Number : 4 Question Id : 86435116473 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Managerial decisions are:

1. Based on an evaluation of quantitative data
2. Not based on the use of quantitative data
3. Not based on the numbers produced by formal model
4. None of the above

Options :
86435155919. 1

86435155920. 2
86435155921. 3
86435155922. 4

Question Number : 5 Question Id : 86435116474 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Every mathematical model:

1. Require computers to solved the problem
2. Must be deterministic
3. Represent data in numerical form
4. All of the above

Options :
86435155923. 1
86435155924. 2
86435155925. 3
86435155926. 4

Question Number : 6 Question Id : 86435116475 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Methods are used to solve the problem of linear programming,

1. Graphical method
2. Simplex method
3. Big-M simplex method
4. All of the above

Options :
86435155927. 1
86435155928. 2
86435155929. 3

86435155930. 4

Question Number : 7 Question Id : 86435116476 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Linear programming is a:

1. Constrained optimization techniques
2. Technique for economic allocation of limited resources
3. Mathematical technique
4. All of the above

Options :
86435155931. 1
86435155932. 2
86435155933. 3
86435155934. 4

Question Number : 8 Question Id : 86435116477 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A feasible solution to an LP problem,

1. Must satisfy all of the problem's constraints simultaneously
2. Need not satisfy all of the constraints
3. Must be corner points of the feasible region
4. Must optimize the value of the objective function

Options :
86435155935. 1
86435155936. 2
86435155937. 3
86435155938. 4

Question Number : 9 Question Id : 86435116478 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If for a given solution, a slack variable is equal to zero, then:

1. The solution is optimal
2. The solution is infeasible
3. The entire amount of resources with the constraint in which the slack variable appears has been consumed
4. All of the above

Options :

86435155939. 1
86435155940. 2
86435155941. 3
86435155942. 4

Question Number : 10 Question Id : 86435116479 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In the optimal simplex table, $Cj-Zj=0$ value indicates:

1. Unbounded solution
2. Cycling
3. Alternative solution
4. Infeasible solution

Options :

86435155943. 1
86435155944. 2
86435155945. 3
86435155946. 4

Question Number : 11 Question Id : 86435116480 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Feasible Solution DOES NOT exist if:

1. When Zj-$Cj \geq 0$ and artificial variable A is in the basis with non-zero value
2. When $Z_j - C_j < 0$ and artificial variable A is in the basis with non-zero value
3. When $Z_j - C_j \geq 0$ and artificial variable A is in the basis with zero value
4. When $Z_j - C_j \leq 0$ and artificial variable A is in the basis with zero value

Options :

86435155947. 1
86435155948. 2
86435155949. 3
86435155950. 4

Question Number : 12 Question Id : 86435116481 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If any value in X_B -column of final Simplex table is negative, then the solution is:

1. Unbounded
2. Infeasible
3. Optimal
4. None of the above

Options :

86435155951. 1
86435155952. 2
86435155953. 3

86435155954. 4

Question Number : 13 Question Id : 86435116482 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For maximization problem, the objective function coefficient for an artificial variable is:

1. +M
2. -M
3. Zero
4. None of the above

Options :
86435155955. 1
86435155956. 2
86435155957. 3
86435155958. 4

Question Number : 14 Question Id : 86435116483 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If an artificial variable is present in the 'basic variable' column of optimal simplex table, then the solution is:

1. Infeasible
2. Unbounded
3. Degenerate
4. None of the above

Options :
86435155959. 1
86435155960. 2
86435155961. 3
86435155962. 4

Question Number : 15 Question Id : 86435116484 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A variable which does not appear in the basic variable (B) column of simplex table is:

1. Never equal to zero
2. Always equal to zero
3. Called a basic variable
4. None of the above

Options :
86435155963. 1
86435155964. 2
86435155965. 3
86435155966. 4

Question Number : 16 Question Id : 86435116485 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Transportation problem is a special class of _____.

1. LPP
2. Assignment problem
3. Neither 1 and 2
4. Both 1 and 2

Options :
86435155967. 1
86435155968. 2
86435155969. 3
86435155970. 4

Question Number : 17 Question Id : 86435116486 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The Objective function of Transportation problem is to_____.

1. Maximize the total cost
2. Minimize or maximize the total cost
3. Minimize the total cost
4. Total cost should be zero

Options :
86435155971. 1
86435155972. 2
86435155973. 3
86435155974. 4

Question Number : 18 Question Id : 86435116487 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In Transportation problem, the preferred method of obtaining either optimal or very close to the optimal solution is _____.

1. North west corner rule
2. Least cost method
3. Vogel'sapproximation method
4. Simplex method

Options :
86435155975. 1
86435155976. 2
86435155977. 3
86435155978. 4

Question Number : 19 Question Id : 86435116488 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The cells in the Transportation problem can be classified as _____.

1. Assigned cells and empty cells
2. Allocated cells and un allocated cells
3. Occupied and unoccupied cells
4. Assigned and unoccupied cells

Options :
86435155979. 1
86435155980. 2
86435155981. 3
86435155982. 4

Question Number : 20 Question Id : 86435116489 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In North West corner rule, if the supply in the row is satisfied one must move _____.

1. Down in the next row
2. Up in the next row
3. Right cell in the next column
4. Left cell in the next row

Options :
86435155983. 1
86435155984. 2
86435155985. 3
86435155986. 4

Question Number : 21 Question Id : 86435116490 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

When total supply is equal to the total demand in transportation problem, the problem is said to be

1. Balanced
2. Unbalanced
3. Degenerate
4. All of the above

Options :
86435155987. 1
86435155988. 2
86435155989. 3
86435155990. 4

Question Number : 22 Question Id : 86435116491 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following method is used to verify the optimality of the current solution of the transportation problem?

1. Least Cost Method
2. Vogel's Approximation Method
3. MODI method
4. All of the above

Options :
86435155991. 1
86435155992. 2
86435155993. 3
86435155994. 4

Question Number : 23 Question Id : 86435116492 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

MODI method and Stepping stone method is used for the purpose:

1. Absolute cost difference
2. Optimal solution
3. Multiple solution
4. All of the above

Options :
86435155995. 1
86435155996. 2
86435155997. 3
86435155998. 4

Question Number : 24 Question Id : 86435116493 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In TP, the improved solution of the initial basic feasible solution is called:

1. Basic solution
2. Optimal solution
3. Degenerate solution
4. Non-degenerate solution

Options :
86435155999. 1
86435156000. 2
86435156001. 3
86435156002. 4

Question Number : 25 Question Id : 86435116494 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the formula to calculate opportunity cost in TP?

1. $C_{ij} - (u_i + V_i)$
2. $C_{ij} + (u_i - V_i)$
3. $C_{ij} - (u_i - V_i)$
4. $C_{lj} + (u_l + V_l)$

Options :
86435156003. 1
86435156004. 2
86435156005. 3
86435156006. 4

Question Number : 26 Question Id : 86435116495 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Dynamic Programming Deals with:

1. Multi stage decision making problem
2. Single stage decision making problem
3. Time dependent decision-making problem
4. None of the above

Options :
86435156007. 1
86435156008. 2
86435156009. 3
86435156010. 4

Question Number : 27 Question Id : 86435116496 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT CORRECT?

1. Dynamic programming problem is solved starting from the initial stage to the next final stage
2. It can be solved by simplex method
3. In dynamic programming problem optimum solution depends on the initial solution
4. Computation in dynamic programming are done recursively

Options :
86435156011. 1
86435156012. 2
86435156013. 3
86435156014. 4

Question Number : 28 Question Id : 86435116497 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT CORRECT?

1. DPP helps in reducing the computation involved in sequential decision making.
2. DPP can be divided into a sequence of smaller sub problems called stage of the original problem
3. DP cannot be dealt with nonlinear constraints
4. The concept of DP is based upon the principle of optimality due to Bellman

Options :
86435156015. 1
86435156016. 2
86435156017. 3
86435156018. 4

Question Number : 29 Question Id : 86435116498 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is CORRECT?

1. DPP can be solved by Graphical Method
2. DPP can be solved by simplex method
3. DPP can be solved by Simulation technique
4. DPP is solved starting from the initial stage to the next till the final stage is reached

Options :
86435156019. 1
86435156020. 2
86435156021. 3
86435156022. 4

Question Number : 30 Question Id : 86435116499 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is CORRECT?

1. DPP can be solved only by recursive approach
2. DPP can be solved only by forward recursive approach
3. DPP can be solved only by backward recursive approach
4. In DPP, when the current stage is known, an optimum policy for the remaining stage is independent

Options :
86435156023. 1
86435156024. 2
86435156025. 3
86435156026. 4

Question Number : 31 Question Id : 86435116500 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In an Assignment Problem, if number of rows is greater than column then _____.

1. Dummy column is added
2. Dummy row added
3. Row with cost 1 is added
4. Column with cost 1 is added

Options :
86435156027. 1
86435156028. 2
86435156029. 3
86435156030. 4

Question Number : 32 Question Id : 86435116501 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In an Assignment Problem, if number of column is greater than row then _____.

1. Dummy column is added
2. Dummy row added
3. Row with cost 1 is added
4. Column with cost 1 is added

Options :
86435156031. 1
86435156032. 2
86435156033. 3
86435156034. 4

Question Number : 33 Question Id : 86435116502 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The method used for solving an Assignment Problem is called_____.

1. Reduced matrix method
2. Modi method
3. Hungarian method
4. Graphical method

Options :
86435156035. 1
86435156036. 2
86435156037. 3
86435156038. 4

Question Number : 34 Question Id : 86435116503 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

When the problem involves the allocation of n different facilities to n different tasks, it is often termed as a/an.....

1. Transportation problem
2. Game theory
3. Integer programming problem
4. Assignment problem

Options :
86435156039. 1
86435156040. 2
86435156041. 3
86435156042. 4

Question Number : 35 Question Id : 86435116504 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the value of allocation to a cell in assignment problem?

1. 1
2. 0
3. Number of row
4. Number of column

Options :
86435156043. 1
86435156044. 2
86435156045. 3
86435156046. 4

Question Number : 36 Question Id : 86435116505 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In cutting plane algorithm, each cut which is made involves the introduction of

1. An '=' constraint
2. An artificial variable
3. A '≤' constraint
4. A '≥' constraint

Options :
86435156047. 1
86435156048. 2
86435156049. 3
86435156050. 4

Question Number : 37 Question Id : 86435116506 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following effects does the addition of a Gomory have?

(i) adding a new variable to the tableau;

(ii) elimination of non-integer solutions from the feasibility region;

(iii) making the previous optimal solution infeasible by eliminating that part of the feasible region which contained that solution.

1. (i) only
2. (i) and (ii) only
3. (i) and (iii) only
4. All of the above

Options :
86435156051. 1
86435156052. 2
86435156053. 3
86435156054. 4

Question Number : 38 Question Id : 86435116507 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Types of integer programming models are _____.

1. Total
2. 0-1
3. Mixed
4. All of the above

Options :
86435156055. 1
86435156056. 2

86435156057. 3
86435156058. 4

Question Number : 39 Question Id : 86435116508 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Solving an integer programming problem by rounding off answers obtained by solving it as a linear programming problem (using simplex), we find that

1. The values of decision variables obtained by rounding off are always very close to the optimal values.
2. The value of the objective function for a maximization problem will likely be less than that for the simplex solution.
3. The value of the objective function for a minimization problem will likely be less than that for the simplex solution.
4. All constraints are satisfied exactly.

Options :
86435156059. 1
86435156060. 2
86435156061. 3
86435156062. 4

Question Number : 40 Question Id : 86435116509 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not a type of integer programming problem?

1. Pure integer programming problem
2. Blending problem
3. Zero-one programming problem
4. Mixed-integer programming problem

Options :
86435156063. 1
86435156064. 2
86435156065. 3
86435156066. 4

Question Number : 41 Question Id : 86435116510 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Consider the following two-person game. What strategy will Y play?

	x	*y*
x	52	37
y	26	18

1. X_1
2. X_2
3. Y_1
4. Y_2

Options :
86435156067. 1
86435156068. 2
86435156069. 3
86435156070. 4

Question Number : 42 Question Id : 86435116511 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Considering the following two-person game, what percentage of the time should Y play strategy Y_1?

	Y_1	Y_2
X_1	6	3
X_2	2	8

1. 1/3
2. 2/3
3. 5/9
4. 4/9

Options :

86435156071. 1
86435156072. 2
86435156073. 3
86435156074. 4

Question Number : 43 Question Id : 86435116512 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Considering the following two-person game, the value of the game (if played many times) is:

	Y_1	Y_2
X_1	6	3
X_2	2	8

1. 19.00
2. 11.00.
3. 4.75
4. None of the above

Options :

86435156075. 1
86435156076. 2

86435156077. 3
86435156078. 4

Question Number : 44 Question Id : 86435116513 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Considering the following two-person game, what is Y's best strategy?

	Y_1	Y_2
X_1	3	6
X_2	2	–2

1. Y1
2. X_2
3. X_1
4. Y_2

Options :
86435156079. 1
86435156080. 2
86435156081. 3
86435156082. 4

Question Number : 45 Question Id : 86435116514 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given the following two-person game, which strategy can be eliminated by use of dominance?

	Y_1	Y_2
X_1	9	13
X_2	12	8
X_3	6	14

1. X_1
2. X_2
3. X_3
4. None of the above

Options :
86435156083. 1
86435156084. 2
86435156085. 3
86435156086. 4

Question Number : 46 Question Id : 86435116515 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The Objective of Network analysis is to:

1. Minimize total project duration
2. Minimize total project cost
3. Minimize conflicts
4. All of the above

Options :
86435156087. 1
86435156088. 2
86435156089. 3

86435156090. 4

Question Number : 47 Question Id : 86435116516 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Network models have advantage in terms of project:

1. Planning
2. Scheduling
3. Controlling
4. All of the above

Options :
86435156091. 1
86435156092. 2
86435156093. 3
86435156094. 4

Question Number : 48 Question Id : 86435116517 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Generally the PERT techniques deals with the project of:

1. Repetitive nature
2. Non-Repetitive nature
3. Deterministic Nature
4. None of the above

Options :
86435156095. 1
86435156096. 2
86435156097. 3
86435156098. 4

Question Number : 49 Question Id : 86435116518 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A dummy activity is used in the network diagram when:

1. Two parallel activities have the same tail and head events
2. The chain of activities may have a common event yet be independent by themselves
3. Both 1 and 2
4. None of the above

Options :
86435156099. 1
86435156100. 2
86435156101. 3
86435156102. 4

Question Number : 50 Question Id : 86435116519 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

While drawing the network diagram, for each activity project we should look:

1. What activity precede this activity?
2. Which activities follow this activity?
3. What activity can concurrently take place with this activity?
4. All of the above

Options :
86435156103. 1
86435156104. 2
86435156105. 3
86435156106. 4

Question Number : 51 Question Id : 86435116520 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The number of payoffs in a decision theory problem having 3 decision alternatives and 4 states of nature are:

1. 4
2. 3
3. 64
4. 12

Options :
86435156107. 1
86435156108. 2
86435156109. 3
86435156110. 4

Question Number : 52 Question Id : 86435116521 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a decision theory problem under complete uncertainty, which one of the following approaches will NOT be possible?

1. Expected monetary value
2. Maximim
3. Minimax
4. Hurwicz

Options :
86435156111. 1
86435156112. 2
86435156113. 3
86435156114. 4

Question Number : 53 Question Id : 86435116522 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a criterion for decision-making under risk?

1. EMV
2. EOL
3. EVPI
4. Laplace

Options :
86435156115. 1
86435156116. 2
86435156117. 3
86435156118. 4

Question Number : 54 Question Id : 86435116523 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a criterion for decision-making under uncertainty?

1. Maximax
2. Hurwicz
3. EMV
4. Laplace

Options :
86435156119. 1
86435156120. 2
86435156121. 3
86435156122. 4

Question Number : 55 Question Id : 86435116524 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A type of decision-making environment is:

1. Certainty
2. Uncertainty
3. Risk
4. All of the above

Options :
86435156123. 1
86435156124. 2
86435156125. 3
86435156126. 4

Question Number : 56 Question Id : 86435116525 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The full form of CPM:

1. Critical Project Management
2. Critical Path Management
3. Critical Path Method
4. Crash Project Method

Options :
86435156127. 1
86435156128. 2
86435156129. 3
86435156130. 4

Question Number : 57 Question Id : 86435116526 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following statements is NOT CORRECT?

1. PERT is probabilistic in nature
2. CPM is probabilistic in nature
3. CPM and PERT use similar terminology but were developed independently
4. All of these statements are correct

Options :
86435156131. 1
86435156132. 2
86435156133. 3
86435156134. 4

Question Number : 58 Question Id : 86435116527 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Mark the wrong statement:

1. Project is a set of activities that can be performed in a certain logical sequence.
2. A network is a graphic portrayal of independency relationship among the activities of a project.
3. An arrow representing an activity can have any length and shape.
4. An activity cannot be represented by more than one arrow but an arrow can represent one or more activities.

Options :
86435156135. 1
86435156136. 2
86435156137. 3
86435156138. 4

Question Number : 59 Question Id : 86435116528 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a rule of network construction?

1. Each defined activity is represented by one and only one arrow.
2. A network should have only initial and one terminal node.
3. Identical initial and final nodes can identify two activities.
4. Only as few dummy activities should be included as is warranted.

Options :
86435156139. 1
86435156140. 2
86435156141. 3
86435156142. 4

Question Number : 60 Question Id : 86435116529 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Mark the wrong statement.

1. Forward pass calculations yield the earliest and the latest start and finish times of various activities.
2. The difference between the latest and the earliest finish times is the total slack
3. Backward pass determines the latest start and the latest finish
4. Determination of the earliest and the latest start time of various activities of a project is useful for proper planning of their execution

Options :
86435156143. 1
86435156144. 2
86435156145. 3
86435156146. 4

Question Number : 61 Question Id : 86435116530 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT CORRECT?

1. Simulation does not produce optimum results.
2. Simulation comparatively is a costlier method of analysis
3. Simulation is descriptive in nature.
4. A simulation model can never be physical.

Options :
86435156147. 1
86435156148. 2
86435156149. 3
86435156150. 4

Question Number : 62 Question Id : 86435116531 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Choose the CORRECT statement.

1. Simulation aim to determine how the system under consideration would behave under certain conditions.
2. Simulation techniques compulsory require use of computer to solve the problem.
3. The output of a simulation model is independent of the simulation run.
4. The random number can be used to generate the value of input variables only if the sampled distribution is uniform.

Options :
86435156151. 1
86435156152. 2
86435156153. 3
86435156154. 4

Question Number : 63 Question Id : 86435116532 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT CORRECT?

1. A simulation model must be so designed that it would unable valuation of the key decision alternatives.
2. For a deterministic model, a single simulation run is sufficient.
3. The output of a simulation model is independent of the size of simulation run.
4. In a mathematical model, mathematical symbols or equations are used to represent system relationships

Options :
86435156155. 1
86435156156. 2
86435156157. 3
86435156158. 4

Question Number : 64 Question Id : 86435116533 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The purpose of using simulation techniques is to:

1. Imitate a real world situation
2. Understand properties and operating characteristics of complex real-life problems
3. Reduce the cost of experiments
4. All of the above

Options :
86435156159. 1
86435156160. 2
86435156161. 3
86435156162. 4

Question Number : 65 Question Id : 86435116534 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

As simulation is NOT an analytical model, therefore, results of Simulation must be viewed as:

1. Unrealistic
2. Exact
3. Approximation
4. Simplified

Options :
86435156163. 1
86435156164. 2
86435156165. 3
86435156166. 4

Question Number : 66 Question Id : 86435116535 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is an example of stochastic process?

1. Weigh of 10 students
2. Yield of potato in January
3. A series of yearly indication of profit or loss of the company
4. Number of holidays in the given year

Options :
86435156167. 1
86435156168. 2
86435156169. 3
86435156170. 4

Question Number : 67 Question Id : 86435116536 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

All elements of TPM are between _____.

1. 0 and 1
2. 0 and 2
3. 1 and 2
4. 1 and 3

Options :
86435156171. 1
86435156172. 2
86435156173. 3
86435156174. 4

Question Number : 68 Question Id : 86435116537 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In Markov process, the full form of TPM is_____.

1. Total Probability Matrix
2. Transition Probability Matrix
3. Time transition matrix
4. None of the above

Options :
86435156175. 1
86435156176. 2
86435156177. 3
86435156178. 4

Question Number : 69 Question Id : 86435116538 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

_____ gave the equation of Transition Probabilities.

1. Poison
2. Chapman Kolomogorov
3. Both 1 & 2
4. None of the above

Options :

86435156179. 1
86435156180. 2
86435156181. 3
86435156182. 4

Sub-Section Number :	2
Sub-Section Id :	864351897
Question Shuffling Allowed :	Yes

Question Number : 70 Question Id : 86435116539 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The decision taken using EMV criterion and using EOL criterion will be different.

1. True
2. False

Options :

86435156183. 1
86435156184. 2

Question Number : 71 Question Id : 86435116540 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In Decision Theory, probabilities are associated with states of nature.

1. True
2. False

Options :
86435156185. 1
86435156186. 2

Sub-Section Number : 3
Sub-Section Id : 864351898
Question Shuffling Allowed : Yes

Question Number : 72 Question Id : 86435116541 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In North West corner rule the allocation is done in _____.

1. Upper left corner
2. Upper right corner
3. Middle cell in the transportation table
4. Cell with the lowest cost

Options :
86435156187. 1
86435156188. 2
86435156189. 3
86435156190. 4

Question Number : 73 Question Id : 86435116542 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In Least cost method, the allocation is done by selecting _____.

1. Upper left corner
2. Upper right corner
3. Middle cell in the transportation table
4. Cell with the lowest cost

Options :
86435156191. 1
86435156192. 2
86435156193. 3
86435156194. 4

Question Number : 74 Question Id : 86435116543 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In Transportation, problem is said to be balanced if _____.

1. Total supply is not equal to total demand
2. Total supply is greater than total demand
3. Total supply is lesser than total demand
4. Total supply is equal to total demand

Options :
86435156195. 1
86435156196. 2
86435156197. 3
86435156198. 4

Question Number : 75 Question Id : 86435116544 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In Transportation, problem is said to be unbalanced if _____.

1. Total supply is not equal to total demand
2. Total supply is greater than total demand
3. Total supply is lesser than total demand
4. Total supply is equal to total demand

Options :
86435156199. 1
86435156200. 2
86435156201. 3
86435156202. 4

Question Number : 76 Question Id : 86435116545 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In North West corner rule if the demand in the column is satisfied one must move to the _____.

1. Left cell in the next column
2. Right cell in the next row
3. Right cell in the next column
4. Left cell in the next row

Options :
86435156203. 1
86435156204. 2
86435156205. 3
86435156206. 4

Question Number : 77 Question Id : 86435116546 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

How are the values of dual variables obtained?

1. $u_i + V_i + C_{ij} = 0$
2. $u_i - V_i - C_{ij} = 0$
3. $u_i - V_i = C_{ij}$
4. $u_i + V_i - C_{ij} = 0$

Options :
86435156207. 1
86435156208. 2
86435156209. 3
86435156210. 4

Question Number : 78 Question Id : 86435116547 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

How many allocated cells should be in m*n TP for optimality test?

1. m-n-1
2. n-m+1
3. m+n-1
4. m+n+1

Options :
86435156211. 1
86435156212. 2
86435156213. 3
86435156214. 4

Question Number : 79 Question Id : 86435116548 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

How to decide an alternative optimal Solution from final optimal solution in TP?

1. $C_{ij} - (u_i + V_i) = 0$
2. $C_{ij} - u_i + V_i = 0$
3. $C_{ij} + (u_i + V_i) = 0$
4. $C_{ij} - (u_i - V_i) = 0$

Options :
86435156215. 1
86435156216. 2
86435156217. 3
86435156218. 4

Question Number : 80 Question Id : 86435116549 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If an opportunity cost value is used for an unused cell to test optimality, it should be:

1. Equal to zero
2. Most negative number
3. Most positive number
4. Any value

Options :
86435156219. 1
86435156220. 2
86435156221. 3
86435156222. 4

Question Number : 81 Question Id : 86435116550 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The degeneracy in the TP indicates that:

1. Dummy allocation needs to be added
2. The problem has to feasible solution
3. The multiple optimal solution exists
4. Options (1) and (2) but not (3)

Options :
86435156223. 1
86435156224. 2
86435156225. 3
86435156226. 4

Question Number : 82 Question Id : 86435116551 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The best use of linear programming technique is to find an optimal use of:

1. Money
2. Machine
3. Manpower
4. All of the above

Options :
86435156227. 1
86435156228. 2
86435156229. 3
86435156230. 4

Question Number : 83 Question Id : 86435116552 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A value that indicates how much the objective function coefficient on the corresponding variable must be improved before the value of the variable will be positive in the optimal solution is?

1. Reduced cost
2. Doubled cost
3. Shadow cost
4. Improved cost

Options :
86435156231. 1
86435156232. 2
86435156233. 3
86435156234. 4

Question Number : 84 Question Id : 86435116553 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The amount of a resource, as represented by a less-than-or- equal constraint that is not being used is?

1. Slack
2. Surplus
3. Both 1 & 2
4. None of the above

Options :
86435156235. 1
86435156236. 2
86435156237. 3
86435156238. 4

Question Number : 85 Question Id : 86435116554 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

When a greater-than-or-equal constraint is not binding, then the ____is the extra amount over the constraint that is being produced or utilized.

1. Slack
2. Surplus
3. Both 1 & 2
4. None of the above

Options :
86435156239. 1
86435156240. 2
86435156241. 3
86435156242. 4

Question Number : 86 Question Id : 86435116555 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is an assumption of an LP model?

1. Divisibility
2. Proportionality
3. Additivity
4. All of the above

Options :
86435156243. 1
86435156244. 2
86435156245. 3
86435156246. 4

Question Number : 87 Question Id : 86435116556 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the full form of EOQ?

1. Economic order quality
2. Economic order quantity
3. Economic order queue
4. All of the above

Options :

86435156247. 1
86435156248. 2
86435156249. 3
86435156250. 4

Question Number : 88 Question Id : 86435116557 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one is TRUE?

1. Cost associated with the ordering of units is called set up cost
2. Cost of ordering units is called production cost
3. Cost of carrying the units is called holding cost
4. Penalty cost for running out of stock is salvage cost

Options :

86435156251. 1
86435156252. 2
86435156253. 3
86435156254. 4

Question Number : 89 Question Id : 86435116558 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Lead time means?

1. Time between the start and end of the production units
2. Time between starting of production and the time of stock becoming zero.
3. Time between placing an order and its arrival in the inventory.
4. Time starting of first trial production.

Options :
86435156255. 1
86435156256. 2
86435156257. 3
86435156258. 4

Question Number : 90 Question Id : 86435116559 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In inventory, Minimum total cost occurs at the point where:

1. Ordering cost and the total inventory carrying cost are equal.
2. Ordering cost is greater than the total inventory carrying cost.
3. Ordering cost is smaller than the total inventory carrying cost.
4. Ordering cost is half of the total inventory carrying cost.

Options :
86435156259. 1
86435156260. 2
86435156261. 3
86435156262. 4

Question Number : 91 Question Id : 86435116560 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For the fundamental EOQ problem, the economic order value is given by:

1. $(2DC_1/C_s)^{1/2}$
2. $(2DC_s/C_1)^{1/2}$
3. $(C_1C_s/2D)^{1/2}$
4. $(DC_1/2C_s)^{1/2}$

Options :
86435156263. 1
86435156264. 2
86435156265. 3
86435156266. 4

Question Number : 92 Question Id : 86435116561 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For the fundamental EOQ problem, the optimum length of the time between order is given by:

1. T/n^0
2. DC_s/n^0C_1
3. D/n^0
4. Q/n^0

Options :
86435156267. 1
86435156268. 2
86435156269. 3
86435156270. 4

Sub-Section Number :	4
Sub-Section Id :	864351899
Question Shuffling Allowed :	Yes

Question Number : 93 Question Id : 86435116562 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A course of action that may be chosen by a decision maker is called an alternative.

1. True
2. False

Options :

86435156271. 1

86435156272. 2

Question Number : 94 Question Id : 86435116563 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Minimax regret criterion uses opportunity loss table.

1. True
2. False

Options :

86435156273. 1

86435156274. 2

Question Number : 95 Question Id : 86435116564 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Decision theory is concerned with determining optimal strategies when a decision maker is faced with a number of alternatives and a risky pattern of future events.

1. True
2. False

Options :

86435156275. 1

86435156276. 2

Question Number : 96 Question Id : 86435116565 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Laplace principle is based on Equi probability of occurrence of possible course of actions.

1. True
2. False

Options :

86435156277. 1

86435156278. 2

Question Number : 97 Question Id : 86435116566 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a decision tree NOT more than two alternative courses of action can emanate from a decision mode.

1. True
2. False

Options :

86435156279. 1

86435156280. 2

Question Number : 98 Question Id : 86435116567 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In transportation problem MODI Method is also known as Stepping Stone Method.

1. True
2. False

Options :

86435156281. 1

86435156282. 2

Sub-Section Number : 5
Sub-Section Id : 864351900
Question Shuffling Allowed : Yes

Question Number : 99 Question Id : 86435116568 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The model deal with the determination of optimum replacement policy is known as:

1. Markovian model
2. Game theory
3. Job sequencing problem
4. Replacement model

Options :
86435156283. 1
86435156284. 2
86435156285. 3
86435156286. 4

Question Number : 100 Question Id : 86435116569 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The model applicable in large projects involving complexities and inter-dependencies of activities is:

1. Queuing models
2. Network models
3. Replacement models
4. Simulation models

Options :

86435156287. 1

86435156288. 2

86435156289. 3

86435156290. 4