

A set of feasible solution to a Linear Programming Problem is

**convex**

polygon

triangle

bold

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Operations Research approach is

- scientific
- intuitive
- collect essential data
- multi-disciplinary**
- 

A feasible solution to a linear programming problem \_

2 points

- must satisfy all the constraints of the problem simultaneously**
- need not satisfy all of the constraints, only some of them must be a
- mid point of the feasible region.
- must optimize the value of the objective function

If any value in XB column of final simplex table is negative, then the solution 2 points

- infeasible**
- bounded no
- solution
- Unbounded

An optimal assignment requires that the maximum number of lines which 2 points  
can be drawn through squares with zero opportunity cost should be  
equal to the number of

- rows and columns.
- rows + columns.
- rows or columns.**
- rows + columns - 1

To proceed with the Modified Distribution method algorithm for solving 2 points  
an transportation problem, the number of dummy allocations need to be  
added are

- n
- n - 1**
- n + 1
- n \* n

In an Linear Programming Problem functions to be maximized or minimized are called

2 points

- constraints
- objective function**
- basic solution
- feasible solution

The coefficient of slack\surplus variables in the objective function are always assumed to be

2 points

- M
- 0**
- M
- I

An assignment problem is a particular case of

2 points

- transportation Problem**
- Game Problem
- travelling salesman problem
- replacement Problem

To resolve degeneracy at the initial solution, a very small quantity is allocated in \_\_\_\_\_ cell

2 points

- occupied
- unoccupied**
- no
- finite

PERT analysis is based on

2 points

- Time**
- Location
- Project
- Cost

Which of the option is not a notable challenge while scheduling a project?

2 points

*Mark only one oval.*

- Deadlines exist.
- Independent activities.**
- Too many workers may be required.
- Costly delay

The particular task performance in CPM is known

2 points

*Mark only one oval.*

- Dummy
- Event
- Activity**
- Contract.

The earliest start time rule

2 points

- Compares the activities starting time for an activity successor.
- Compares the activities end time for an activity predecessor.**
- Directs when a project can start.
- Regulates when a project must begin.

The critical path

2 points

- Is a path that operates from the starting node to the end node
- Is a mixture of all paths.
- Is the longest path**
- Is the shortest path

Planning tasks associated with job scheduling, machine loading, and dispatching typically falls under

2 points

*Mark only one oval.*

- long-range plans
- intermediate-range plans
- short-range plans**
- mission-related planning

Which of the following statements regarding PERT times is true?

2 points

- Optimistic time estimate is an estimate of the minimum time an activity will require.**
- Optimistic time estimate is an estimate of the maximum time an activity will require.
- The probable time estimate is calculated as  $t = (a + 4m + b)/6$ .
- Pessimistic time estimate is an estimate of the minimum time an activity will require.

Which of the following statements regarding critical paths is true?

2 points

- The shortest of all paths through the network is the critical path.
- Some activities on the critical path may have slack.
- Every network has exactly one critical path.
- On a specific project, there can be multiple critical paths, all with exactly the same duration.**

In game theory, the outcome or consequence of a strategy is referred to as the 2 po

- payoff.**
- penalty.
- reward.
- end-game strategy.

Activities A, B, and C are the immediate predecessors for Y activity. If the 2 point  
earliest finish times for the three activities are 12, 15, and 10, then the  
earliest start time for Y will be

- 12
- 15**
- 10
- 11

Activities P, Q and R instantly follow activity M, and their current start 2 points  
times are 12, 19, and 10. Therefore, the latest finish time for activity M is

- 19
- Can not be detemined
- 12
- 10**

The full form of PERT is

2 points

- Program Evaluation and Rate Technology
- Program Evaluation and Robot Technique
- Program Evaluation and RobotTechnology
- Program Evaluation and Review Technique**

\_\_\_\_\_ are used to represent activity in a network (PERT) diagram.

2 points

- Circles
- Squares
- Rectangles
- Arrows**

The shortest possible time in which an activity of PERT can be achieved under ideal circumstances is known as

2 points

- Pessimistic time estimate
- Optimistic time estimate**
- Expected time estimate
- The most likely time estimate

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*Mark only one oval.*

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- 0**
- M
- 1

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- Problem**
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- Expected time estimate
- The most likely time estimate

The difference between the maximum time available and the actual time needed to perform an activity is known as 2 points

- Free float
- Independent float
- Total float**
- Half float

2 points

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**t**

**e**

**g**

**y**

P

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If the value of the game is zero, then the game is known as

- Fair game
- non-zero sum game
- unfair game
- zero sum game**

In northwest corner method allocation are made

2 points

- Starting from the left hand side top corner**
- Starting from the right hand side top corner
- Starting from the lowest cost cell
- Starting from the left hand side bottom corner
- \_\_\_\_\_

While solving an assignment problem, an activity is assigned to a resource through a square with zero opportunity cost because the objective is to\_\_\_\_\_.

- reduce the cost of assignment to zero
- minimize total cost of assignment.**
- . reduce the cost of that particular assignment to zero
- reduce total cost of assignment



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