## TYBMS Sem VI Operations Research

- 1. Operations Research approach is \_\_\_\_\_\_.
  - A. multi-disciplinary
  - B. scientific
  - C. intuitive
  - D. collect essential data

2. A non-feasible solution to a linear programming problem \_\_\_\_\_\_.

- A. Does not satisfy all the constraints of the problem simultaneously
- B. need not satisfy all of the constraints, only some of them
- C. must be a corner point of the feasible region.
- D. must optimize the value of the objective function

**3.** The objective of network analysis is to\_\_\_\_\_.

- A. minimize total project duration
- B. minimize total project cost
- C. minimize production delays, interruption and conflicts
- D. maximize total project duration

**4.** \_\_\_\_\_\_ is a mathematical technique used to solve the problem of allocating limited resource among the competing activities

- A. Linear Programming problem
- B. Assignment Problem
- C. Replacement Problem
- D. Non-linear Programming Problem

5. The activity cost corresponding to the crash time is called the \_\_\_\_\_\_.

- A. critical time
- B. normal time
- C. cost slope
- D. crash cost

6. The non basic variables are called \_\_\_\_\_\_.

- A. shadow cost
- B. opportunity cost
- C. slack variable
- D. surplus variable

**7.** A transportation problem with sources and destinations is optimal if the numbers of allocations are \_\_\_\_\_.

- A. m+n
- B. mn

- C. m-n
- D. m+n-1

8. The assignment algorithm was developed by \_\_\_\_\_ method.

- A. HUNGARIAN
- B. VOGELS
- C. MODI
- D. TRAVELING SALES MAN

9. An activity which does not consume neither any resource nor time is known as

- A. predecessor activity
- B. successor activity
- C. dummy activity
- D. activity

**10.** The difference between total and free float is \_\_\_\_\_.

- A. total
- B. free
- C. independent
- D. interference

**11.** If the net evaluation corresponding to any non -basic variable is zero, it is an indication of the existence of an \_\_\_\_\_.

- A. initial basic feasible solution
- B. optimum basic feasible solution
- C. optimum solution.
- D. alternate optimum solution.

12. When in assignment problem cost of completing task is given

- A. the problem is minimization type
- B. the problem is maximization type
- C. feasible typ
- D. adding each entry in the table from the maximum value in that table

**13.** When the sum of gains of one player is equal to the sum of losses to another player in a game, this situation is known as \_\_\_\_\_\_.

- A. two-person game
- B. two-person zero-sum game
- C. zero-sum game
- D. non-zero-sum game

**14.** Graphical method is also known as \_\_\_\_\_\_.

- A. Simplex Method
- B. Dual Simplex Method
- C. Big-M Method
- D. Search-Approach Method

**15.** When the total units to be transported is equal to units available then the transportation problem is said to be \_\_\_\_\_

- A. balanced
- B. unbalanced
- C. maximization
- D. minimization

**16.** A game is said to be strictly determinable if \_\_\_\_\_.

- A. maximin value equal to minimax value
- B. maximin value is less than or equal to minimax value
- C. maximin value is greater than or equal to minimax value
- D. maximin value is not equal to minimax value

**17.** The irreducible minimum duration of the project is called \_\_\_\_\_\_.

- A. critical time
- B. normal time
- C. cost slope
- D. crash duration

**18.** The minimum duration of the project is called \_\_\_\_\_\_.

- A. critical time
- B. normal time
- C. optimistic time
- D. crash duration

**19.** In the transportation table, unoccupied cells will be calculated as \_\_\_\_\_\_.

- A. Cost -U
- B. Cost -V
- C. Cost -(U+V)
- D. finite

**20.** A degenerate solution is one that \_\_\_\_\_.

- A. gives an optimum solution to the Linear Programming Problem
- B. gives zero value to one or more of the basic variables
- C. yields more than one way to achieve the objective
- D. makes use of all the available resources