

**Class: TYBMS SEM-VI**  
**Subject: Operational Research**  
**Sample Questions**

1. Operations Research, which is a very powerful tool for \_\_\_\_\_
  - a. Research
  - b. Decision-Making
  - c. Operations
  - d. None of the above
  
2. This Innovative science of Operations Research was discovered during \_\_\_\_\_
  - a. Civil War
  - b. World War I
  - c. World War II
  - d. Industrial Revolution
  
3. Who defined Operations Research as scientific approach to problem solving for executive management?
  - a. E.L. Arnoff
  - b. P.M.S. Blackett
  - c. H.M. Wagner
  - d. None of the above
  
4. Operations Research has the characteristics that it is done by a team of \_\_\_\_\_
  - a. Scientists
  - b. Mathematicians
  - c. Academics
  - d. All of the above
  
5. If the number of jobs is equal to the number of resources, then the problem is term as \_\_\_\_\_ assignment problem
  - a. Balanced
  - b. Unbalanced

- c. Equal
- d. Unequal

6. Maximization problem, then convert into minimization table through \_\_\_\_\_

- a. Row minimization
- b. Column minimization
- c. Regret matrix
- d. Profit matrix

7. When a particular assignment in the given problem is not possible or restricted as a condition, it is called a \_\_\_ problem

- a. Infeasible
- b. Degenerate
- c. Unbalanced
- d. Prohibited

8. In a transportation problem, the method of penalties is called \_\_\_\_\_.

- a. North west corner
- b. Least cost
- c. South east corner
- d. Vogel's approximation

9. When demand is not equal to supply it is \_\_\_\_\_ problems

- a. Maximization
- b. Minimization
- c. Unbalance
- d. Balance

10. The solution to a transportation problem with 'm' rows (supplies) & 'n' columns (destination) is feasible if number of positive allocations are

- a.  $M+n$
- b.  $M*n$
- c.  $M+n-1$
- d.  $M+n+1$

11. MODI method is used to obtain \_\_\_\_\_

- a. Optimal solutions
- b. Optimality test
- c. Both a & b
- d. optimization

12. For a project manager to have an effective means of identifying and communicating the planned activities and their interrelationships, he must use a network technique. One of the network techniques is commonly known as CPM, what does CPM stand for?

- a. Critical plan method
- b. Coordinated plan method
- c. Critical project method
- d. Critical path method

13. The time by which activity completion time can be delayed without affecting the start of succeeding activities, is known as .

- a. Interfering float
- b. Total float
- c. Duration
- d. Free float

14. The second longest path in the network diagram is called

- a. Alternate
- b. Feasible
- c. Sub-critical
- d. Critical

15. In PERT, slack time equals

- a.  $EST + t$
- b.  $LST - EST$
- c. Zero
- d.  $EFT - EST$

16. \_\_\_\_\_ an activity that must be completed prior to the start of another activity

- a. Sequential activity
- b. Preceding activity
- c. Succeeding activity

d. Concurrent activity

17. The rate at which the cost increases is called as the \_\_\_\_\_

- a. Crash slope
- b. Crash time
- c. Crash cost
- d. Total crash

18. The total completion time is referred as the

- a. Crash slope
- b. Crash time
- c. Crashing cost
- d. Total crash

19. In project crashing, the costs associated with actual activities (e.g. material, machinery, etc) are called \_\_\_\_\_ costs.

- a. Visible
- b. Measurable
- c. Direct
- d. Indirect

20. \_\_\_\_\_ time is the time interval between starting the first job and completing the last job

- a. Total elapsed
- b. Total slack
- c. Total time
- d. Total cost

21. The longest of all paths through the network is the \_\_\_\_\_

- a. Crucial path
- b. Time taking path
- c. Dummy path
- d. Critical path

22. In PERT, the time estimate calculated by using formula  $(a+4m+b)/6$  is called \_\_\_\_\_ time

- a. Optimistic
- b. Pessimistic

- c. Most likely
- d. Expected

23. If there are  $n$  jobs to be performed, one at a time, on each of  $m$  machines, the possible sequences would be

- a.  $(n!)m$
- b.  $(n)m$
- c.  $(m!)n$
- d.  $(m)n$

24. When the number of competitors are  $n(N > 2)$ , then the game is known\_\_\_\_\_.

- a) Two person game
- b) zero sum game
- c) N-person game
- d) value of game

25. Objective of project crashing is to \_\_\_\_\_idle time of the facilities in the non critical paths.

- a) increase
- b) reduce
- c) equal
- d) no change

**Note: LPP is omitted for your examination.**

**Best Of Luck**

