

Operation Research

Quiz Exam - 2

MULTIPLE CHOICE

1. Replacement decision is very much common in this stage
- a. Infant stage
 - b. Old age
 - c. Youth
 - d. In all the above

ANS: B PTS: 1

2. The replacement policy that is imposed on an item irrespective of its failure is
- a. Group replacement
 - b. Individual replacement
 - c. Repair spare replacement
 - d. Successive replacement

ANS: A PTS: 1

3. Which of the following maintenance policy is not used in the old age stage of a machine
- a. Operate up to failure and do corrective maintenance
 - b. Reconditioning
 - c. Replacement
 - d. Scheduled preventive maintenance

ANS: D PTS: 1

4. The following replacement model is said to be a probabilistic model
- a. When money value does not change with time and time is a continuous variable
 - b. When money value changes with time
 - c. When money value does not change with time and time is a discrete variable
 - d. Preventive maintenance policy

ANS: D PTS: 1

5. A machine is replaced with an average running cost
- a. Is not equal to the current running cost
 - b. till the current period is greater than that of next period
 - c. of the current period is greater than that of the next period,
 - d. of the current period is less than that of next period

ANS: D PTS: 1

6. Decreasing failure rate is usually observed in stage of the machine
- a. infant
 - b. youth
 - c. old age
 - d. any time in its life

ANS: A PTS: 1

7. The production manager will not recommend group replacement policy in case of
- a. When large number of identical items is to be replaced
 - b. Low cost items are to be replaced, where record keeping is a problem
 - c. For items that fail completely
 - d. Repairable items

ANS: D PTS: 1

8. In replacement analysis the maintenance cost is a function of
- a. time
 - b. resale value
 - c. initial investment
 - d. none of these

ANS: A PTS: 1

9. Which of the following is the correct assumption for replacement policy when money value does not change with time?
- a. No Capital cost
 - b. No scrap value
 - c. Constant scrap value
 - d. Zero maintenance cost

ANS: C PTS: 1

10. Which one of the following does not match the group?
- a. Present Worth Factor (PWF)
 - b. Discounted rate (DR)
 - c. Depreciation value (DV)
 - d. Mortality Tables (MT)

ANS: D PTS: 1

11. Group replacement policy applies to
- a. Irreparable items
 - b. Repairable items
 - c. Items that fail partially
 - d. Items that fail completely & suddenly

ANS: D PTS: 1

12. If a machine becomes old, then the failure rate expected will be
- a. Constant
 - b. Increasing
 - c. decreasing
 - d. we cannot say

ANS: B PTS: 1

13. Replacement is said to be necessary if
- a. Failure rate is increasing
 - b. Failure cost is increasing
 - c. Failure probability is increasing
 - d. Any of these

ANS: D PTS: 1

14. In this stage, the machine operates at highest efficiency and its production rate will be high
- a. Infant stage
 - b. Youth stage
 - c. Old age
 - d. None of these

ANS: B PTS: 1

15. In retrogressive failures, the failure probability with time
- increases
 - remains constant
 - decreases
 - none of these
- ANS: C PTS: 1
16. When money value changes with time at 10 %, then PWF for the first year is
- 1
 - 0.909
 - 0.852
 - 0.9
- ANS: A PTS: 1
17. When money value changes with time at 20%, the discount factor for the 2nd year is
- 1
 - 0.833
 - 0
 - 0.6955
- ANS: B PTS: 1
18. Which of the following replacement policies is considered to be dynamic in nature?
- Time is a continuous variable and the money value does not change with time
 - When money value does not change with time and time is a discrete variable
 - When money value changes with time
 - When money value remains constant for some time and then goes on changing with time
- ANS: C PTS: 1
19. When the probability of failure reduces gradually, the failure mode is said to be
- Regressive
 - Retrogressive
 - Progressive
 - Recursive
- ANS: B PTS: 1
20. is concerned with the determination of the most economic replacement policy.
- Probabilistic programming
 - Linear programming
 - Search theory
 - Replacement theory
- ANS: D PTS: 1
21. Which cost of the following is irrelevant to replacement analysis?
- Purchase cost of the machine
 - Operating cost of the machine
 - Maintenance cost of the machine
 - Machine hour rate of the machine
- ANS: D PTS: 1
22. Group replacement policy is most suitable for
- Trucks
 - Infant machines
 - Street light bulbs
 - New cars
- ANS: C PTS: 1

23. Replacement of an item will become necessary when
- a. an old item becomes too expensive to operate or maintain
 - b. when your operator desires to work on a new machine
 - c. when your opponent changes his machine in his unit
 - d. when the company has surplus funds to spend

ANS: A PTS: 1

24. The following is not discussed in group replacement policy
- a. Failure Probability
 - b. Cost of individual replacement
 - c. Loss due to failure
 - d. Present worth factor series

ANS: D PTS: 1

25. It is assumed that maintenance cost mostly depends on
- a. calendar age
 - b. manufacturing date
 - c. running age
 - d. user's age

ANS: C PTS: 1

26. Which of the following is correct?
- a. Re-order quantity in a fixed order-interval system equals EOQ
 - b. Review period of the item is always kept higher than its lead time
 - c. Re-order level of an item is always more than its minimum stock
 - d. Buffer stock is the total stock kept to meet the demand during lead time

ANS: C PTS: 1

27. The group replacement policy is suitable for identical low cost items which are likely to _____.
- a. fail suddenly
 - b. fail completely and suddenly
 - c. fail over a period of time
 - d. be progressive and retrogressive

ANS: C PTS: 1

28. A game is said to be fair if _____.
- a. lower and upper values are zero
 - b. only lower value to be zero
 - c. only upper value to be zero
 - d. lower and upper values are not equal to zero

ANS: A PTS: 1

29. Which of the following is not a part of holding (or carrying) costs?
- a. Rent for storage space
 - b. Extra expenses for an overnight express mail.
 - c. Spoilage costs
 - d. Electricity and heat for the buildings

ANS: B PTS: 1

30. The area bounded by all the given constraints is called _____.
- a. feasible region
 - b. basic solution
 - c. non feasible region
 - d. optimum basic feasible solution

ANS: A PTS: 1

31. When $D=18000$, holding cost=Rs.1.20, set-up cost=Rs.400 ,EOQ = _____
 a. 3465 c. 3500
 b. 3750 d. 4000
 ANS: A PTS: 1
32. Given arrival rate = 15/hr, service rate = 20/hr, the value of traffic intensity is _____.
 a. $3/4$ c. $3/5$
 b. $4/3$ d. $4/5$
 ANS: A PTS: 1
33. An activity is critical if its _____ float is zero
 a. total c. independent
 b. free d. interference
 ANS: A PTS: 1
34. _____ is employed in construction and business problems
 a. Queue c. CPM
 b. Replacement d. PERT
 ANS: D PTS: 1
35. Operations Research techniques help to find solution.
 a. Feasible solution c. Optimal solution
 b. Infeasible solution d. None of these
 ANS: C PTS: 1
36. Operations Research Techniques involves approach.
 a. Team approach c. Individual approach
 b. Critical approach d. None of these
 ANS: C PTS: 1
37. An activity which must be completed before commencement of one or more other activities is called.....
 a. Successor activity c. Dummy activity
 b. Predecessor activity d. None of these
 ANS: B PTS: 1
38. An activity which does not consume either resource or time is called
 a. Predecessor activity c. Dummy activity
 b. Successor activity d. Terminal activity
 ANS: C PTS: 1
39. Decision making under certainty refers to situation.
 a. Deterministic c. Competitive
 b. Probabilistic d. None of these
 ANS: A PTS: 1

40.is known as father of game theory.
- | | |
|----------------|---------------------|
| a. Von Neumann | c. George b Dantzig |
| b. A K Erlang | d. Arnoff |
- ANS: A PTS: 1
41. Which of the following is an assumption of game theory?
- | | |
|--|--|
| a. The players act rationally and intelligently | c. The players attempt to maximise gains or minimises losses |
| b. Each payer has a finite set of possible courses of action | d. All of the above |
- ANS: D PTS: 1
42. Each participant of the game is called.....
- | | |
|---------------|-----------|
| a. Strategist | c. Player |
| b. Winner | d. Loser |
- ANS: C PTS: 1
43. The outcome of a game is known as.....
- | | |
|-----------|------------|
| a. Profit | c. Pay off |
| b. Loss | d. None |
- ANS: C PTS: 1
44. A matrix which shows the gains and losses resulting from moves and counter moves is called.....
- | | |
|-------------------|------------------|
| a. Cost matrix | c. Both a and b |
| b. Pay off matrix | d. None of these |
- ANS: B PTS: 1
45. When all the players of the game follow their optimal strategies, then the expected pay off of the game is called.....
- | | |
|---------------------|----------------------|
| a. Gain of the game | c. Value of the game |
| b. Loss of the game | d. None of these |
- ANS: C PTS: 1
46. A game is said to be fair if the value of the game is.....
- | | |
|--------|----------|
| a. One | c. Three |
| b. Two | d. Zero |
- ANS: D PTS: 1
47. The position in the pay off matrix where the maximin coincides with the minimax.
- | | |
|---------------------|----------------------|
| a. Saddle point | c. Pivot point |
| b. Break even point | d. None of the above |
- ANS: A PTS: 1

48. In agame the amounts won by all winners together is equal to the sum of the amounts lost by all losers together.
- Non-zero sum game
 - Zero sum game
 - Rectangular game
 - None of these
- ANS: B PTS: 1
49. Which of the following method is used to solve mixed strategy problems:
- Probability method
 - Graphic method
 - Linear Programming method
 - All of the above
- ANS: D PTS: 1
50. A queue is formed when the demand for a service:
- Exceeds the capacity to provide that service
 - Is less than the capacity to provide that service
 - a or b
 - None of these
- ANS: A PTS: 1
51. Queuing theory is also termed as
- Game theory
 - Replacement theory
 - Waiting line theory
 - None of these
- ANS: C PTS: 1
52. In queuing theory, refers to those waiting in a queue or receiving service.
- Service provider
 - Customer
 - Both a and b
 - None of these
- ANS: B PTS: 1
53. In queuing theory, is a person by whom service is rendered.
- Customer
 - Server
 - a or b
 - none of these
- ANS: B PTS: 1
54. In waiting line theory, number of customers waiting in the queue is referred to as
- Traffic intensity
 - Queuing system
 - Service pattern
 - Queue length
- ANS: D PTS: 1
55. Number of customers in the queue per unit of time is called
- Queuing system
 - Length of queue
 - Average length of queue
 - None of these
- ANS: C PTS: 1

56. The ratio between mean arrival rate and mean service rate is called
 a. Idle period c. Traffic intensity
 b. Average length of queue d. None of these
 ANS: C PTS: 1
57. Commonly assumed probability distribution of arrival pattern is
 a. Poisson distribution c. Normal distribution
 b. Binomial distribution d. None of these
 ANS: A PTS: 1
58. a customer's behaviour of leaving the queue when he does not like to wait in the queue due to lack of time or space is called
 a. Jockeying c. Collusion
 b. Reneging d. Balking
 ANS: D PTS: 1
59. Commonly assumed probability distribution of service pattern are
 a. Poisson distribution c. Erlang distribution
 b. Exponential distribution d. b and c
 ANS: D PTS: 1
60. A customer's behaviour of leaving the queue due to impatience is called
 a. Jockeying c. Collusion
 b. Reneging d. Balking
 ANS: B PTS: 1
61. A customer's behaviour of jumping from one queue to another is called
 a. Jockeying c. Collusion
 b. Reneging d. Balking
 ANS: A PTS: 1
62. In queuing theory, stands for mean arrival rate of customers.
 a. μ c. t
 b. λ d. none of these
 ANS: B PTS: 1
63. In queuing theory, stands for mean service rate.
 a. μ c. t
 b. λ d. none of these
 ANS: A PTS: 1

64. Customer behavior in which the customer moves from one the queue to another in a multiple channel situation is
- a. balking
 - b. reneging
 - c. jockeying
 - d. alternating

ANS: C PTS: 1

65. Which of the following characteristics apply to the queuing system
- a. customer population
 - b. arrival process
 - c. both (a) & (b)
 - d. neither (a) nor (b)

ANS: C PTS: 1

66. Which of the following is not a key operating characteristic for a queuing system
- a. percent idle time
 - b. average time spent waiting in the system and queue
 - c. utilization factor
 - d. none of the above

ANS: D PTS: 1

67. The calling population is assumed to be infinite when
- a. arrivals are independent of each other
 - b. the capacity of the system is infinite
 - c. service rate is faster than the arrival rate
 - d. all of the above

ANS: A PTS: 1

68. Which of the cost estimates and performance measures are not used for economic analysis of a queuing system
- a. cost per server per unit of time
 - b. cost per unit of time for a customer waiting in the system
 - c. the average number of customers in the system
 - d. average waiting time of customers in the system

ANS: D PTS: 1

69. A calling population is considered to be infinite when
- a. all customers arrive at once
 - b. arrivals are independent of each other
 - c. arrivals are dependent upon each other
 - d. all of the above

ANS: B PTS: 1

70. The cost of providing service in a queuing system decreases with
- a. decreased average waiting time in the queue
 - b. decreased arrival rate
 - c. increased arrival rate
 - d. none of the above

ANS: D PTS: 1

71. Service mechanism in a queuing system is characterized by
- a. server's behavior
 - b. customer's behavior
 - c. customers in the system
 - d. all of the above

ANS: A PTS: 1

72. Which of the following relationships is not true

- a. $w_s = w_q + \frac{1}{\mu}$ c. $L_s = L_q + \frac{1}{\lambda}$
b. $L_s = \lambda w_s$ d. $L_q = \lambda w_s$

ANS: C PTS: 1

73. The expected length of the non-empty queue is given by

- a. $L = \mu/(\mu - \lambda)$ c. $L = \lambda/(\mu - \lambda)$
b. $L = s\mu/(s\mu - \lambda)$ d. $\lambda/(\mu - \lambda) + \left(\frac{1}{\mu}\right)$

ANS: A PTS: 1

74. As per queue discipline, the following is not a negative behavior of a customer:

- a. Balking c. Boarding
b. Reneging d. Collusion.

ANS: C PTS: 1

75. The expediting or follow up function in production control is an example of

- a. LIFO c. SIRO
b. FIFO d. Preemptive

ANS: D PTS: 1

76. In M/M/S: N/FIFO the following does not apply

- a. Poisson arrival c. Exponential service
b. Limited service d. Single server

ANS: D PTS: 1

77. The system of loading and unloading of goods usually follows:

- a. LIFO c. SIRO
b. FIFO d. SBP

ANS: A PTS: 1

78. If the operating characteristics of a queue are dependent on time, then is said to be:

- a. Transient state c. Steady-state
b. Busy state d. Explosive state

ANS: A PTS: 1

79. A person who leaves the queue by losing his patience to wait is said to be

- a. Reneging c. Jockeying
b. Balking d. Collusion.

ANS: A PTS: 1

80. The characteristics of a queuing model are independent of
- Number of service stations
 - Limit of the length of the queue
 - Service Pattern
 - Queue discipline

ANS: D PTS: 1

81. The unit of traffic intensity is:
- Poisson
 - Markow
 - Erlang
 - Kendall

ANS: C PTS: 1

82. The queue discipline in stack of plates is:
- LIFO
 - SIRO
 - Non-Pre-Emptive
 - FIFO

ANS: A PTS: 1

83. Office filing system follows:
- LIFO
 - FIFO
 - SIRO
 - SBP

ANS: A PTS: 1

84. SIRO discipline is generally found in:
- Loading and unloading
 - Office filing
 - Lottery draw
 - Train arrivals at a platform

ANS: C PTS: 1

85.

$$(M/M/1), \rho = \frac{\lambda}{\mu}$$

- For a simple queue is known as
- Poisson busy period
 - Random factor
 - Traffic intensity
 - Exponential service factor

ANS: C PTS: 1

86. A service system, where the customer is stationary and server is moving is found with:
- Buffet Meals
 - Outpatient at a clinic
 - A person attending the breakdowns of heavy machines
 - Vehicle at Petrol bunk

ANS: C PTS: 1

87. This department is responsible for the development of queuing theory:
- Railway station
 - Municipal office
 - Telephone department
 - Health department

ANS: C PTS: 1

88. If the number of arrivals during a given time period is independent of the number of arrivals that has already occurred prior to the beginning of the time interval, then the new arrivals follow the -----distribution.
- Erlang
 - Poisson
 - Exponential
 - Normal
- ANS: B PTS: 1
89. When the operating characteristics of the queue system dependent on time, then it is said to be:
- Steady-state
 - Explosive state
 - Transient state
 - Anyone of the above
- ANS: C PTS: 1
90. The distribution of arrivals in a queuing system can be considered as a:
- Death Process
 - Pure Birth Process
 - Pure live process
 - Sick process
- ANS: B PTS: 1
91. Queuing models measure the effect of:
- Random arrivals
 - Random service
 - Effect of uncertainty on the behavior of the queuing system
 - Length of queue
- ANS: C PTS: 1
92. Traffic intensity is given by
- Mean arrival rate/Mean service rate
 - $\lambda \times \mu$
 - μ / λ
 - Number present in the queue / Number served
- ANS: A PTS: 1
93. In queue designation A/B/S : (d/f), what does S represents:
- Arrival Pattern
 - Service Pattern
 - Number of service channels
 - The capacity of the system
- ANS: A PTS: 1
94. priority queue discipline may be classified as
- Finite or infinite
 - Limited & unlimited
 - Pre-emptive or non-pre-emptive
 - All of the above
- ANS: C PTS: 1
95. the calling population is assumed to be infinite when
- Arrivals are independent of each other
 - Capacity of the system is infinite
 - Service rate is faster than arrival rate
 - All of the above
- ANS: A PTS: 1

96. service mechanism in a queuing system is characterized by
- a. Server's behavior
 - b. Customer's behavior
 - c. Customers in the system
 - d. All of the above

ANS: A PTS: 1

97. probabilities of occurrence of any state are
- a. Collectively exhaustive
 - b. Mutually exclusive
 - c. Representing one of the finite numbers of states of nature in the system
 - d. All of the above

ANS: D PTS: 1

98. In a matrix of transition probability the element a_{ij} where $i = j$ is a
- a. Gain
 - b. Loss
 - c. Retention
 - d. None of the above

ANS: C PTS: 1

99. A two-person zero-sum game means that the
- a. the sum of losses to one player is equal to the sum of gains to other
 - b. the sum of losses to one player is not equal to the sum of gains to other
 - c. no any player gains or losses
 - d. none of these

ANS: A PTS: 1

100. Game theory models are classified by the
- a. number of players
 - b. sum of all payoffs
 - c. number of strategies
 - d. all of these

ANS: D PTS: 1

101. A game is said to be fair if
- a. both upper and lower values of the game are the same and zero
 - b. upper and lower values of the game are not equal
 - c. upper value is more than the lower value of the game
 - d. none of these

ANS: A PTS: 1

102. What happens when maximin and minimax values of the game are same?
- a. no solution exists
 - b. solution is mixed
 - c. saddle point exists
 - d. none of these

ANS: C PTS: 1

103. A mixed strategy game can be solved by
- a. algebraic method
 - b. matrix method
 - c. graphical method
 - d. all of these

ANS: D PTS: 1

104. The size of the payoff matrix of a game can be reduced by using the principle of

- a. game inversion
- b. rotation reduction
- c. dominance
- d. game transpose

ANS: C PTS: 1

105. The payoff value for which each player in a game always selects the same strategy is called the

- a. saddle point
- b. equilibrium point
- c. both (a) and (b)
- d. none of these

ANS: A PTS: 1

106. Games which involve more than two players are called

- a. conflicting games
- b. negotiable games
- c. N-person games
- d. all of these

ANS: C PTS: 1

107. 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. biased game
- b. zero-sum game
- c. fair game
- d. all of these

ANS: B PTS: 1

108. When no saddle point is found in a payoff matrix of a game, the value of the game is then found by

- a. reducing the size of the game to apply the algebraic method
- b. solving any one 2x2 subgame
- c. finding the average of all the values of the payoff matrix
- d. none of these

ANS: A PTS: 1

109. A saddle point exists when

- a. maximin value = maximax value
- b. minimax value = minimum value
- c. minimax value = maximin value
- d. none of these

ANS: C PTS: 1

110. In a pure strategy game

- a. any strategy may be selected arbitrarily
- b. a particular strategy is selected by each player
- c. both players select their optimal strategy
- d. none of these

ANS: C PTS: 1

111. In a mixed strategy game

- a. no saddle point exists
- b. each player selects the same strategy without considering other player's choice
- c. each player always selects the same strategy
- d. all of these

ANS: A PTS: 1

112. Game theory is the study of
- a. selecting optimal strategies
 - b. resolving conflict between players
 - c. giving equal outcome to participants
 - d. none of these

ANS: A PTS: 1

113. If the value of the game is zero, then the game is known as:
- a. Fair strategy
 - b. Pure strategy
 - c. Pure game
 - d. Mixed strategy

ANS: C PTS: 1

114. The games with saddle points are
- a. Probabilistic in nature,
 - b. Normative in nature
 - c. Stochastic in nature,
 - d. Deterministic in nature.

ANS: D PTS: 1

115. When the game is played on a predetermined course of action, which does not change throughout the game, then the game is said to be
- a. Pure strategy game
 - b. Fair strategy game
 - c. Mixed strategy game
 - d. Unsteady game

ANS: A PTS: 1

116. If the losses of player A are the gains of the player B, then the game is known as
- a. Fair game
 - b. Unfair game
 - c. Non- a zero-sum game
 - d. Zero-sum game

ANS: D PTS: 1

117. Identify the wrong statement:
- a. A game without saddle point is probabilistic
 - b. Game with saddle point will have pure strategies
 - c. Game with saddle point cannot be solved by dominance rule
 - d. Game without saddle point uses mixed strategies

ANS: C PTS: 1

118. If a two-person zero-sum game is converted to a Linear Programming Problem,
- a. Number of variables must be two only
 - b. There will be no objective function
 - c. If row player represents Primal problem, Column player represent Dual problem
 - d. The number of constraints is two only

ANS: C PTS: 1

119. In case, there is no saddle point in a game then the game is
- a. Deterministic game
 - b. Fair game
 - c. Mixed strategy game
 - d. Multiplayer game

ANS: C PTS: 1

120. A competitive situation is known as
- Competition
 - Marketing
 - Game
 - None of these
- ANS: C PTS: 1
121. One of the assumptions in the game theory is
- All players act rationally and intelligently
 - The winner alone acts rationally
 - Loser acts intelligently
 - Both the players believe luck
- ANS: A PTS: 1
122. A play is played when
- The manager gives green signal
 - Each player chooses one of his courses of action simultaneously
 - The player who comes to the place first says that he will start the game
 - When the latecomer says that he starts the game
- ANS: B PTS: 1
123. The list of courses of action with each player
- is finite
 - is infinite
 - three only
 - none of these
- ANS: A PTS: 1
124. A game involving 'n' persons is known as:
- Multi member game
 - Multi player game
 - n - person game
 - not a game
- ANS: C PTS: 1
125. Theory of games and economic behavior is published by:
- John Von Neumann and Morgenstern
 - John Flood
 - Bellman and Neumann
 - Mr. Erlang
- ANS: A PTS: 1
126. In queuing system, _____ refers to those waiting in a queue or receiving service
- Service provider
 - Client
 - Customer
 - Patron
- ANS: C PTS: 1
127. A queue is formed when the demand for a service
- Exceeds the capacity to provide that service
 - Is less than the capacity to provide that service
 - Is equal to the capacity to provide that service
 - There is no relation of service capacity and queue
- ANS: A PTS: 1

128. Commonly assumed probability distribution of arrival pattern is _____
a. Poisson distribution c. Normal distribution
b. Binomial distribution d. Beta distribution
ANS: A PTS: 1
129. Commonly assumed probability distribution of service pattern
a. Poisson distribution c. Normal distribution
b. Exponential distribution d. Beta distribution
ANS: B PTS: 1
130. A customer's behavior of jumping from one queue to another is called _____
a. Jockeying c. Collusion
b. Reneging d. Balking
ANS: A PTS: 1
131. Operations research is the application of _____ methods to arrive at the optimal solutions to the problems.
a. Economical c. Artistic
b. Scientific d. Rational
ANS: B PTS: 1
132. In operations research, the _____ are prepared for situations.
a. Mathematical models c. Physical models
b. Diagrammatic models d. Iconic models
ANS: A PTS: 1
133. OR techniques help the directing authority in optimum allocation of various limited resources like _____
a. Men and machine c. Material and time
b. Money d. All of the options
ANS: D PTS: 1
134. Operation research approach is
a. Multi-disciplinary c. Intuitive
b. Artificial d. Limited to some fields
ANS: A PTS: 1
135. Operation research analysts do not _____
a. Predict future operation c. Collect the relevant data
b. Build models d. Recommend decision and accept
ANS: A PTS: 1

136. Which technique is used in finding a solution for optimizing a given objective, such as profit maximization or cost reduction under certain constraints?
- a. Queuing Theory
 - b. Network Analysis
 - c. Linear Programming
 - d. Sequencing Model
- ANS: C PTS: 1
137. Operations Research is a very powerful tool for _____
- a. Operations
 - b. Research
 - c. Decision making
 - d. Simulation
- ANS: C PTS: 1
138. Which of the following is not an inventory?
- a. Machines
 - b. Raw material
 - c. Finished products
 - d. Consumable tools
- ANS: A PTS: 1
139. The following costs are usually involved in inventory decisions except
- a. Cost of ordering
 - b. Carrying cost
 - c. Cost of shortages
 - d. Machining cost
- ANS: D PTS: 1
140. The cost of insurance and taxes are included in
- a. Cost of ordering
 - b. Set up cost
 - c. Inventory carrying cost
 - d. Cost of shortages
- ANS: C PTS: 1
141. 'Buffer stock' is the level of stock
- a. Half of the actual stock
 - b. At which the ordering process should start
 - c. Minimum stock level below which actual stock should not fall
 - d. Maximum stock in inventory
- ANS: C PTS: 1
142. The time period between placing an order its receipt in stock is known as
- a. Lead time
 - b. Carrying time
 - c. Shortage time
 - d. Over time
- ANS: A PTS: 1