

1. Multi . Staging used in centrifugal pumps because _____
 - (1) For high efficiency
 - (2) For high flow rate
 - (3) For high head
 - (4) For high speed

2. Which one of the following is not a positive displacement pump ?
 - (1) Vane pump
 - (2) Centrifugal pump
 - (3) Lobe pump
 - (4) None of the above

3. Freon 12 is a compound consisting of atoms of _____
 - (1) Carbon and Hydrogen
 - (2) Carbon, Hydrogen and Oxygen
 - (3) Carbon and Fluorine
 - (4) Carbon, Fluorine and Chlorine

4. The most common type of vapour absorption system used for industrial applications _____
 - (1) Freon 12
 - (2) Brine and water
 - (3) Ammonia and water
 - (4) Hydrogen and water

5. Vertical lines of a psychrometric charts indicates _____
 - (1) Dry bulb temperature
 - (2) Dew point temperature
 - (3) Wet bulb temperature
 - (4) Relative humidity

6. Automobile Vehicle manufacturing assembly line is a best example for the _____

- (1) Product Layout
- (2) Group Layout
- (3) Process Layout
- (4) Fixed position Layout

7. Head developed by a centrifugal pump depends on _____

- (1) Speed
- (2) Casing
- (3) Speed & impeller diameter
- (4) Impeller diameter

8. Which type of pump is suitable for low discharges but high pressure applications ?

- (1) Centrifugal
- (2) Reciprocating
- (3) Gear
- (4) Axial flow

9. Casings of a centrifugal pumps are designed so as to minimize _____

- (1) Cavitation
- (2) Head loss
- (3) Friction loss
- (4) Loss of kinetic energy

10. Francis turbines are best suited for _____

- (1) Low head
- (2) High head
- (3) Medium head
- (4) None of the above

11. In Vapour compression refrigeration system refrigerant occurs as a liquid between _____

- (1) Condenser & expansion valve
- (2) Compression & evaporator
- (3) Expansion valve & evaporator
- (4) Compressor & condenser

12. Aqua Ammonia is used as a refrigerant in the following type of refrigeration system _____

- (1) Compression
- (2) Direct
- (3) Indirect
- (4) Absorption

13. In refrigeration cycle the flow of refrigerant is controlled by _____

- (1) Expansion valve
- (2) Compressor
- (3) Evaporator
- (4) Condenser

14. Ammonia when used as refrigerant is _____

- (1) Non-toxic
- (2) Toxic and inflammable
- (3) Non inflammable
- (4) Toxic

15. Air conditioning means _____

- (1) Heating
- (2) Cooling
- (3) Humidification
- (4) All of the above

16. Which of the following refrigerant have ozone depletion potential ?

- (1) Ammonia
- (2) Carbon dioxide
- (3) (CFC) Fluorine
- (4) Sulphur dioxide

17. Vapour absorption refrigeration systems are _____

- (1) Noisy operation
- (2) Quite operation
- (3) Low power consumption
- (4) None of the above

18. For unsaturated air, the dew point temperature is _____ wet bulb temperature.

- (1) Less than
- (2) Equal to
- (3) More than
- (4) None of the above

19. Gantt charts are used for _____

- (1) Inventory control
- (2) Material handling
- (3) Production scheduling
- (4) Machine repair

20. The main objective of having scientific layout is for _____

- (1) Better quality
- (2) Utilization of floor space
- (3) Minimize production delays
- (4) All of the above

21. Military organizations is also known as _____

- (1) Line
- (2) Staff
- (3) Line & Staff
- (4) Functional

22. The essential time for completion of any activity can be determined from _____

- (1) Optimistic time
- (2) Most likely time
- (3) Pessimistic time
- (4) All of the above

23. The chart which gives estimate of the material handling between work stations is known as _____

- (1) Travel chart
- (2) Process chart
- (3) Flow chart
- (4) Operations chart

24. In a line type of organization _____

- (1) Discipline strong
- (2) Fixed responsibility
- (3) Quick decisions
- (4) All of the above

25. In ship building _____ type of layout is used.

- (1) Process
- (2) Product
- (3) Static
- (4) Group technology

26. Break even analysis requires _____

- (1) Fixed cost
- (2) Total cost
- (3) Variable cost
- (4) Total cost & Total revenue

27. A critical activity in network has _____

- (1) Minimum slack
- (2) Zero slack
- (3) Maximum slack
- (4) None of the above

28. A normal distribution curve will have skewness value equal to _____

- (1) Positive
- (2) Negative
- (3) Zero
- (4) None of above

29. \bar{X} and R charts are used for _____

- (1) Production control
- (2) Cost control
- (3) Process control
- (4) Material control

30. The control chart for number of defects per unit is _____

- (1) \bar{X} - chart
- (2) R - chart
- (3) np . chart
- (4) U . chart

31. The cost associated with defective products produced comes under _____

- (1) Prevention
- (2) Internal failure
- (3) External failure
- (4) Appraisal

32. In quality control the cost associated with prevention is _____ of total cost.

- (1) 10%
- (2) 30%
- (3) 40%
- (4) 50%

33. Jet ratio is expressed in ratio of _____

- (1) Diameter of pelton wheel to diameter of the jet of water
- (2) Diameter of jet of water to diameter of pelton wheel
- (3) Velocity of vane to velocity of the jet water
- (4) Velocity of the flow to velocity of jet of water

34. The unit speed (Nu) is _____

- (1) $N/H^{3/2}$
- (2) $N/H^{3/4}$
- (3) $N/H^{1/2}$
- (4) $N/H^{5/4}$

35. Use of hydraulic accumulator is _____

- (1) Storing fluid energy in pressure energy form
- (2) Increasing the pressure intensity of fluid
- (3) Lifting heavy weights
- (4) Transmitting power from one shaft to another

36. 1 kgf-m / sec is equal to _____

- (1) 98.1 watts
- (2) 9.81 watts
- (3) 981 watts
- (4) 0.981 watts

37. The coefficient of performance of refrigerator working on Carnot cycle in terms of operating temperature is _____

- (1) (highest - lowest) / highest
- (2) (highest - lowest) / lowest
- (3) lowest / (highest - lowest)
- (4) highest / (highest - lowest)

38. One ton refrigeration machine implies that the machine _____

- (1) Is capable of extracting heat that would melt one ton of ice at 0°C into Water at 0°C in a period of 24 hours
- (2) Consumes one ton of refrigerant in 24 hours
- (3) Capacity to convert one ton of water into ice
- (4) Has a gross weight of 1 ton

39. Fixed position layout means _____

- (1) Machine fixed position
- (2) Operators fixed position
- (3) Fixed path material movement
- (4) Fixed position of the largest component of product

40. Humidity ratio in terms of dry air mass (m_a) and water vapour mass (m_w) is _____

- (1) $m_a / (m_a + m_w)$
- (2) m_w / m_a
- (3) $m_w / (m_a + m_w)$
- (4) m_a / m_w

41. The ratio of actual velocity of a Jet of water at vena-contracta to the theoretical velocity is _____
- (1) Co-efficient of discharge
 - (2) Co-efficient of velocity
 - (3) Co-efficient of contraction
 - (4) Co-efficient of viscosity
42. Notch is a device used for measuring _____
- (1) Rate of flow through pipes
 - (2) Rate of flow through a small channel
 - (3) Velocity through a small channel
 - (4) Velocity through a pipe
43. If the froude number in open channel flow is less than 1.0, the flow is called _____
- (1) Critical flow
 - (2) Super critical flow
 - (3) Sub-critical flow
 - (4) None of the above
44. The manometer head (H_m) of a centrifugal pump is given by _____
- (1) Pressure head at outlet of pump pressure head at inlet
 - (2) Total head at inlet . total head at outlet
 - (3) Total head at outlet . total head at inlet
 - (4) None of the above.
45. Main characteristic curves of a turbine means curves at _____
- (1) Constant speed
 - (2) Constant efficiency
 - (3) Constant head
 - (4) None of the above

46. A good refrigerant should have _____

- (1) Low boiling point
- (2) Low Viscosity
- (3) Low specific heat
- (4) All of the above

47. Evaporating pressure of a refrigerant as compared to atmospheric pressure is _____

- (1) Less
- (2) More
- (3) Equal
- (4) None of the above

48. Vapour compression refrigeration system works on _____

- (1) Heat energy
- (2) Mech- energy
- (3) Chemical energy
- (4) None of the above

49. If all the processing equipment and machines are arranged according to the sequence of operations of a product the layout is known as _____

- (1) Product layout
- (2) Process layout
- (3) Fixed position layout
- (4) Combination layout

50. What are two basic types of Production Systems ?

- (1) Automated and Manual
- (2) Intermittent and Non-intermittent process
- (3) Normal and Continuous process
- (4) Continuous Process and batch

