

BOOKLET SERIES E

- Q15. Slenderness ratio is the ratio of
(a) maximum size of column to minimum size of column
(b) width of column to depth of column
(c) effective length of column to least radius of gyration of the column
(d) effective length of column to width of column
- Q16. When screw threads are to be used in a situation where power is being transmitted in one direction only, then the screw threads suitable for this will be
(a) square threads (b) acme threads
(c) knuckle threads (d) buttress threads
- Q17. If the depth of water in an open channel is less than the critical depth, the flow is called
(a) critical flow (b) turbulent flow
(c) tranquil flow (d) torrential flow
- Q18. A nozzle placed at the end of a water pipe line discharges water at a
(a) low pressure (b) high pressure
(c) low velocity (d) high velocity
- Q19. When a body is immersed wholly or partially in a liquid, it is lifted up by a force equal to the weight of liquid displaced by the body. This statement is called
(a) Pascal's law (b) Archimedes's principle
(c) principle of floatation (d) Bernoulli's theorem
- Q20. The ratio of the inertia force to the _____ is called Euler's number.
(a) pressure force (b) elastic force
(c) surface tension force (d) viscous force
- Q21. The portion of the blast furnace above its widest cross-section is called
(a) hearth (b) stack (c) bosh (d) throat
- Q22. The heat treatment process used for castings is
(a) carburising (b) normalizing
(c) annealing (d) tempering
- Q23. Micro-structure of a material is, generally, examined by
(a) naked eye (b) optical microscope
(c) X-ray techniques (d) none of these
- Q24. Coefficient of friction depends upon
(a) area of contact only (b) nature of surface only
(c) both (a) and (b) (d) none of these
- Q25. The velocity ratio of a single purchase crab winch can be increased by
(a) increasing the length of the handle
(b) increasing the radius of the load drum
(c) increasing the number of teeth of the pinion
(d) all of the above
- Q26. Reheating in a gas turbine
(a) increases the thermal efficiency
(b) increases the compressor work
(c) increases the turbine work
(d) decreases the thermal efficiency
- Q27. An after cooler is used to
(a) remove impurities from air
(b) reduce volume of air
(c) cause moisture and oil vapour to drop out
(d) cool the air

- Q40. Military type of organisation is known as
(a) line organisation
(b) functional organisation
(c) line and staff organisation
(d) line, staff and functional organisation
- Q41. The procedure of modifying work content to give more meaning and enjoyment to the job by involving employees in planning, organisation and control of their work, is termed as
(a) job enlargement (b) job enrichment
(c) job rotation (d) job evaluation
- Q42. The tool made of cemented carbide wear out faster at
(a) slow speeds (b) medium speeds
(c) fast speeds (d) very fast speeds
- Q43. Twist drills are made of
(a) high speed steel (b) carbon steel
(c) stainless steel (d) either (a) or (b)
- Q44. A twist drill is a
(a) side cutting tool (b) front cutting tool
(c) end cutting tool (d) none of these
- Q45. When drawing a line using the relative coordinate system a line is created from _____
(a) 0,0 (b) the ending point of the last line
(c) the beginning point of the last line (d) none of the above
- Q46. When using the direct entry method to create a horizontal line exactly three inches long the drafter should _____ first.
(a) pull the line from away from the starting point very carefully
(b) insure that Ortho is on
(c) enter 3 for the length of the line
(d) read the coordinate position on the Dynamic Readout
- Q47. Which of the following conditions are needed to properly bias an *npn* transistor amplifier?
(a) Forward bias the base/emitter junction and reverse bias the base/collector junction.
(b) Forward bias the collector/base junction and reverse bias the emitter/base junction.
(c) Apply a positive voltage on the n-type material and a negative voltage on the p-type material.
(d) Apply a large voltage on the base.
- Q48. In helicopters tail rotor is used to control
(a) yaw (b) roll (c) pitch (d) lift
- Q49. The lift of an aircraft is directly proportional to the
(a) speed of aircraft (b) square of speed of aircraft.
(c) does not depend on speed. (d) none of the above
- Q50. The hardness of steel can be measure in
(a) Brinell number (b) Reynold's number
(c) Froude's number (d) none of the above