

099/2016

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Which of the following compass is used to draw very large circle?
(A) Large compass (B) Beam compass
(C) Drop compass (D) Bow compass
2. The trimmed size of A3 drawing sheet is :
(A) 297×420 mm (B) 210×297 mm
(C) 148×210 mm (D) 420×594 mm
3. An angle which is less than 90° is called :
(A) Obtuse angle (B) Acute angle
(C) Reflex angle (D) Straight
4. A triangle has two of its sides equal :
(A) Scalene triangle (B) Equilateral triangle
(C) Isosceles triangle (D) Right angled triangle
5. If an object lies in third quadrant, its position with respect to reference plane will be :
(A) In front of VP above HP (B) In front of VP below HP
(C) Behind VP above HP (D) Behind VP below HP
6. When the object is cut by a section plane parallel to HP and perpendicular to VP. Then the section view of the object is obtained in :
(A) Right side view (B) Left side view
(C) Plan (D) Elevation
7. Which type of drawing shows the front of the object in true position?
(A) Oblique projection (B) Perspective projection
(C) Isometric projection (D) None of these

8. The distance a screw thread advances axially for one complete revolution is called :
- (A) Pitch (B) Root
(C) Module (D) Lead
9. Which one of the following threads, is used on mechanical screw jack?
- (A) V threads (B) Acme threads
(C) Square threads (D) Buttress threads
10. 'Rag bolt' is a type of :
- (A) Welding bolt (B) Foundation bolt
(C) Heavy duty bolt (D) Locking bolt
11. The semicircular key is used for transmitting light torque :
- (A) Feather key (B) Gib head key
(C) Saddle key (D) Woodruff key
12. The proportion of a nut thickness with respect to bolt diameter (D) is :
- (A) 0.5 D (B) 0.8 D
(C) D (D) 1.73 D
13. The rivet usually used for boiler plate riveting :
- (A) Pan head (B) Snap head
(C) Conical head (D) Countersunk head
14. The vice used for forging work is :
- (A) Forging vice (B) Leg vice
(C) Toolmaker's vice (D) Bench vice
15. The box nut of a bench vice is made of :
- (A) Phosphorus bronze (B) Aluminium
(C) Alloy steel (D) Lead
16. Rasp cut file is used for filing :
- (A) Mild steel (B) Cast iron
(C) Nickel Steel (D) Wood

17. The mallet is made of :
- (A) Mild steel (B) Cast iron
(C) Nickel steel (D) Wood
18. Which of the following chisel is used for cutting keyways?
- (A) Crosscut chisel (B) Diamond point chisel
(C) Flat chisel (D) Round nose chisel
19. The least count of metric Vernier height gauge is :
- (A) 0.01 mm (B) 0.02 mm
(C) 0.1 mm (D) 0.5 mm
20. The lathe bed is made of :
- (A) Mild steel (B) High carbon steel
(C) Cast iron (D) Alloy steel
21. The size of the sine bar is specified by :
- (A) Overall length (B) Length and weight
(C) Distance between rollers (D) Roller's diameter
22. The least count of Vernier bevel protractor is :
- (A) 1 minutes (B) 5 minutes
(C) 12 minutes (D) 30 minutes
23. In a shaper :
- (A) Work reciprocates and tool stationary
(B) Work reciprocates and tool moves over them
(C) Work stationary and tool reciprocates
(D) Work stationary and tool moves over them
24. Clapper box is used in :
- (A) Shaper (B) Radial drilling machine
(C) Centre less grinding machine (D) Slotter

25. The irregular shaped work pieces are clamped on a lathe by using :
- (A) Face plate (B) Four jaw chuck
(C) Mandrill (D) Lathe dog
26. The file grades are determined by the :
- (A) Distance from tip to heel (B) Spacing of the teeth
(C) Cut of file (D) Shape of file
27. Name the operation of cutting a sheet of metal in a straight line along the length :
- (A) Lancing (B) Embossing
(C) Slitting (D) Perforating
28. The cutting tool in a milling machine is mounted on :
- (A) Chuck (B) Arbor
(C) Spindle (D) Tool post
29. The operation of cutting a piece out of stock material to a predetermined contour termed as :
- (A) Drawing (B) Piercing
(C) Punching (D) Blanking
30. Which among the following stake provides double ended support?
- (A) Horse stake (B) Funnel stake
(C) Creasing stake (D) Half moon stake
31. The point angle of a centre punch is :
- (A) 30° (B) 60°
(C) 45° (D) 90°
32. Bend snips are used for :
- (A) Support round articles
(B) Making round holes
(C) Cutting metal sheet along a curved lines
(D) None
33. In acetylene cylinder, the acetylene is dissolved in :
- (A) Carbon dioxide (B) Water
(C) Oxygen (D) Acetone

34. In Foundry, which sand is used for making cores :
- (A) Oil sand (B) Green sand
(C) Loam sand (D) Parting sand
35. Which tool is used for repairing and finishing the mould surface after the pattern is withdrawn?
- (A) Lifter (B) Slick
(C) Swab (D) Riddle
36. Which taper is provided in the hollow end of tail stock bores in a centre lathe?
- (A) Morse taper (B) Jerno taper
(C) Brown and sharp taper (D) Metric taper
37. The unit of electric conductance is :
- (A) Farad (B) Henry
(C) Coulomb (D) Siemens
38. Which of the following generator have two field winding?
- (A) Shunt wound generator (B) Series wound generator
(C) Compound wound generator (D) Parallel wound generator
39. The air-fuel ratio of the petrol engine is controlled by :
- (A) Injector (B) Governor
(C) Carburetor (D) Fuel pump
40. Which of the following devices used to control the speed variation of the engine caused by the fluctuation of the engine turning moment?
- (A) Crank shaft (B) Cam shaft
(C) Governor (D) Fly wheel
41. The loud pulsating noise heard within the cylinder of an IC engine is known as :
- (A) Scavenging (B) Detonation
(C) Injecting (D) Super charging

42. The ratio of break power to the indicated power of an IC engine :
- (A) Indicated thermal efficiency (B) Relative efficiency
(C) Break thermal efficiency (D) Mechanical efficiency
43. An intentional difference between the hole dimensions and shaft dimensions for any type of fit is called :
- (A) Allowance (B) Tolerance
(C) Deviation (D) Fit
44. The irregularities in the surface texture due to the inherent action of the production process is called :
- (A) Waviness (B) Lay
(C) Roughness (D) Flaws
45. Which of the following coupling can used for connecting two shafts, whose axis are parallel but not in same alignment?
- (A) Oldham coupling (B) Muff coupling
(C) Flange coupling (D) Sleeve coupling
46. For designing a sleeve coupling, if ' d ' is the diameter of the shaft in mm, then diameter of the sleeve is taken as :
- (A) $d + 17$ mm (B) $2d + 13$ mm
(C) $2d + 20$ mm (D) $3.5d$ mm
47. The portion of the shaft carried in the plane bearing is often referred as :
- (A) Hub (B) Races
(C) Case (D) Journal
48. The antifriction bearing's rolling elements are usually made of :
- (A) Chrome steel (B) High speed steel
(C) High carbon steel (D) Silicon steel
49. RAM of a computer means :
- (A) Random Access Memory (B) Real Access Memory
(C) Rapid Action Memory (D) Rapid Access Memory

50. Expand UCS :
- (A) Universal Curser Sign (B) Universal Co-ordinate System
(C) Universal Card Setting (D) Universal Card Site
51. Polar co-ordinate system is mostly used in AutoCAD for drawing :
- (A) Circle (B) Ellipse
(C) Arc (D) Angular lines
52. In AutoCAD, which of the following space the free orbit tool can found?
- (A) Modify (B) 3D move
(C) Rotate (D) Revolve
53. PAN command is used to move the drawing over the computer screen in CAD drawing :
- (A) Horizontally (B) Vertically
(C) In any directions (D) In 'Z' directions
54. In, AutoCAD, the function key for ortho ON/OFF is :
- (A) F6 (B) F7
(C) F8 (D) F9
55. 'Zoom out' during CAD drawing :
- (A) Roll the wheel forward (B) Roll the wheel backward
(C) Double click the wheel button (D) Hold down the wheel button
56. IF you erase a geometry accidently, which command used to retrieve the geometry in AutoCAD :
- (A) OOPS (B) TRIM
(C) ERASE (D) None of these
57. Which command can used in AutoCAD to duplicate existing objects in a circular pattern?
- (A) COPY (B) ARRAY
(C) MOVE (D) MIRROR
58. In AutoCAD, which command will give solid objects?
- (A) REVOLVE (B) ROTATE
(C) EXTRUDE (D) EXPLOD

59. Solder is an alloy of :
- (A) Copper and Tin (B) Lead and Zinc
(C) Lead and Tin (D) Copper and Lead
60. The fast pulley is a pulley which has :
- (A) Runs fast (B) Runs independently
(C) A grooved pulley (D) Fitted on the shaft
61. The actual difference caused between the surface speed of the belt and pulley is :
- (A) Creep (B) Slip
(C) Dressing (D) None of these
62. Which of the following gear, the teeth are cut at an angle to the axis of rotation?
- (A) Spur gear (B) Helical gear
(C) Hypoid gear (D) Bevel gear
63. The jockey pulley or idler pulley is fitted :
- (A) Near the driver pulley on the tension side of the belt
(B) Near the driven pulley on the tension side of the belt
(C) Near the driver pulley on the slack side of the belt
(D) Near the driven pulley on the slack side of the belt
64. The ratio of the pitch diameter to the number of teeth of the gear is :
- (A) Pitch (B) Pitch circle
(C) Root depth (D) Module
65. The size of the gear is usually specified by :
- (A) Diametrical pitch (B) Pitch circle diameter
(C) Addendum circle (D) Dedendum circle
66. Dwell period of a cam is the period in which the follower :
- (A) Moves fast (B) Moves slow
(C) Does not move (D) None of these

67. Which form of energy is stored in a hydraulic accumulator?
- (A) Pressure energy (B) Kinetic energy
(C) Potential energy (D) Heat energy
68. Which of the following pump is suitable for high head and less discharge?
- (A) Centrifugal pump (B) Reciprocating pump
(C) Came and piston pump (D) Plunger pump
69. Which of the following jig consist of a drill plate, which rests on the component to be drilled?
- (A) Solid jig (B) Trunion jig
(C) Box jig (D) Plate jig
70. Which of the following clamp works on the principle of inclined planes?
- (A) Cam clamp (B) Toggle clamp
(C) Wedge clamp (D) Latch clamp
71. Which of the following gauge is used to check the gap between mating parts?
- (A) Snap gauge (B) Plug gauge
(C) Feeler gauge (D) Caliper gauge
72. In pneumatic system, a sensor serves the purpose of :
- (A) Feedback (B) Transmission
(C) Control (D) None of these
73. The washer is specified by its :
- (A) Thickness (B) Mean diameter
(C) Outer diameter (D) Inner diameter
74. The ratio of the ultimate stress to the working stress is :
- (A) Poisson's ratio (B) Factor of safety
(C) Young's modulus (D) Modulus of rigidity
75. In which type of drawing, vertical pipes may be revolved into the horizontal plane?
- (A) Plane view (B) Transverse view
(C) Developed view (D) Front view