

025/2020

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. The shape of warning sign in safety is :
(A) Square (B) Circular
(C) Triangular (D) Rectangular
2. Which extinguisher for fire is most suitable for flammable liquid?
(A) Foam type (B) Dry powder
(C) CO₂ (D) Halon Extinguisher
3. The specific gravity of zinc is:
(A) 2.7 (B) 7
(C) 6.2 (D) 8.2
4. The melting point of silver is :
(A) 1083°C (B) 419°C
(C) 964°C (D) 330°C
5. Gun metal alloy contains :
(A) Copper, Aluminium (B) Copper, Tin, Zinc
(C) Copper, Lead (D) Copper, Nickel
6. Indian standard steel plates are designated as :
(A) ISSH (B) ISF
(C) ISPL (D) ISST
7. Which of the following metal has highest specific gravity?
(A) Zinc (B) Lead
(C) Copper (D) Tin
8. Which one of the following sheet metal is the cheapest?
(A) Black iron (B) Lead
(C) Tin (D) Aluminium

A

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[P.T.O.]

9. Which of the following sheet is used for making highly corrosive acid tanks?
(A) Tin sheet (B) Lead sheet
(C) G.P. sheet (D) Aluminium sheet
10. The metal sheet used for making food container is :
(A) Stainless steel (B) Copper
(C) Brass (D) Tin
11. Name of folded edge on a sheet metal object is :
(A) Wiring (B) Hem
(C) Seam (D) Crimp
12. The reading accuracy of steel rule is :
(A) 0.2 mm (B) 0.7 mm
(C) 0.5 mm (D) 1 mm
13. Accuracy of outside caliper is limited to :
(A) 1 mm (B) 0.5 mm
(C) 1.5 mm (D) 0.01 mm
14. In which part of an outside micrometer the datum line marked?
(A) Spindle (B) Thimble
(C) Barrel (D) Anvil
15. Vernier Bevel protractor can measure angles precisely to an accuracy of _____ minutes.
(A) 6 (B) 5
(C) 8 (D) 10
16. Which of the following is not the part of a combination set?
(A) Protractor head (B) Rule
(C) Square head (D) Gauge
17. What is the other name of universal combination shear?
(A) Gilbow shear (B) Tinman shear
(C) Block shear (D) Rohdes shear

18. The pitch of hacksaw blade used for cutting high carbon steel is _____ mm.
- (A) 0.8 mm (B) 1.4 mm
(C) 1 mm (D) 1.8 mm
19. What is the point angle of Drill for drilling the material steel and cast steel 70120 kg f/mm²?
- (A) 118° (B) 140°
(C) 130° (D) 113°
20. Which of the following screw driver is useful for applying greater turning force?
- (A) Philips screw driver (B) Heavy duty
(C) Offset (D) Standard
21. Which sheet metal seam is used in toys?
- (A) Dovetail seam (B) Stake joint
(C) Plain lap (D) Sunk lap
22. For a locked grooved joint width of groover 6mm and sheet thickness is 0.5 mm, then width of the fold is :
- (A) 5 mm (B) 4.5 mm
(C) 3 mm (D) 4 mm
23. The longitudinal seam used in curved section of duct work is :
- (A) Dovetail (B) Lap joint
(C) Pittsburgh seam (D) Standing seam
24. Allowance for pan down seam in sheet metal is :
- (A) $2W + 2T$ (B) $2W + 3T$
(C) $W + 3T$ (D) $3W + 3T$
25. Which notch is used when single hem meets at right angle?
- (A) Square notch (B) Straight notch
(C) Slant notch (D) Wire notch
26. In 'V' Notch both the sides are cut at a _____ degree angle to the edge of sheet.
- (A) 60° (B) 65°
(C) 45° (D) 30°


27. What type of development method followed for cone and pyramid?
 (A) Geometrical construction (B) Triangulation method
 (C) Radial line (D) Parallel line
28. Which method of pattern layout is used for twisted taper square?
 (A) Triangulation (B) Parallel line
 (C) Radial line (D) Geometrical construction
29. What is the formula for calculating arc length in geometrical construction method of pattern development?
 (A) $l = 2\pi r \times Q^\circ / 360$ (B) $l = 2\pi d \times Q^\circ / 360$
 (C) $l = 3\pi r \times Q^\circ / 360$ (D) $l = 2r \times Q^\circ / 360$
30. What is used in fabrication industries for checking contour of a radius corner while bending plates?
 (A) Profile (B) Templates
 (C) Gauge (D) Pattern
31. Which metal in the following is not used for making rivets?
 (A) Low carbon steel
 (B) Brass
 (C) Aluminium
 (D) Cast Iron
32. What is the formula generally used in shop floor for length of snap head rivets?
 (A) $L = T + 1.5D$ (B) $L = T + 4D$
 (C) $L = T + 2D$ (D) $L = T + 0.7D$
33. The number of joints commonly used in riveting are :
 (A) 3 (B) 4
 (C) 2 (D) 6
34. What is the pitch of rivets in chain riveting?
 (A) 4D (B) 2D
 (C) 3D (D) 2.5D

35. Total sheet metal base thickness upto _____ mm can be used for semitubular and metal piercing rivets.
- (A) 3 mm (B) 1.5 mm
(C) 2 mm (D) 2.5 mm
36. Which of the following not the part of lazy tong?
- (A) Linkages (B) Yoke
(C) Bush (D) Fulcrum pin
37. While riveting sometimes rivets tends to bend and deform because
- (A) Hole is too large (B) Burrs indrilling
(C) Rivet length long (D) Rivet too short
38. What is the name of the rivet that machined to produce two prongs at the shank end?
- (A) Pop rivet (B) Bifurcated rivet
(C) Insulated rivets (D) Counter sunk rivet
39. Lag screws are available in upto _____ inches.
- (A) 2 (B) 3
(C) 5 (D) 6
40. Name the cylindrical thin disc with hole in the centre :
- (A) Plain washer (B) Spring washer
(C) Nut (D) Split pin
41. What is Tin, lead ratio composition in Extra fine solder?
- (A) 50%, 50% (B) 66%, 34%
(C) 63%, 37% (D) 60%, 40%
42. Which material is used for making soldering iron?
- (A) Bronze (B) Brass and Brass alloys
(C) Copper and copper Alloys (D) Tin
43. What type of fuel used in hand forging?
- (A) LPG (B) Kerosene
(C) Charcoal (D) Methane

44. What Inorganic flux is used for soldering Tin-Bronze?
 (A) Sal-ammoniac (B) Killed spirit
 (C) Muriatic acid (D) Phosphoric acid
45. Which part of the following is not related to square section segmental bend pipe?
 (A) Throat (B) Heel
 (C) Miter line (D) Clearance
46. What is the method of pattern development for a 90° Elbow of equal diameter?
 (A) Triangulation (B) Radial
 (C) Geometrical construction (D) Parallel line
47. A Tee joint may be taken as a combination of
 (A) Two elbows (B) One elbow and Tee
 (C) One acute angle elbow (D) One obtuse angle elbow
48. Which of the following is not a feature essential to do soldering?
 (A) Correct joint design (B) Preparation of joint
 (C) Selection of Solder (D) Clean with wirebrush
49. What is the method of soldering applied in rectifying the leakage of water tanks and fuel tanks?
 (A) Brazing (B) Silver soldering
 (C) Sweating soldering (D) Lead filling
50. What is the point angle of a chisel to cut the metal Brass?
 (A) 65° (B) 60°
 (C) 50° (D) 45°
51. The chemical formula of Bauxite :
 (A) $Al_2(SO_4)_3 \cdot nH_2O$ (B) $Al_2O_3 \cdot nH_2O$
 (C) $Al_2SiO_5 \cdot nH_2O$ (D) $AlPO_4 \cdot nH_2O$
52. The specific gravity of Copper is :
 (A) 8.92 (B) 2.70
 (C) 11.36 (D) 2.31

53. Name the alloy from the following combinations, Al 92.5%, Cu 4% ,Ni 2% ,Mg 1.5% :
- (A) Aldural (B) Gun metal
(C) Y Alloy (D) Duralumin
54. Which steel is used for making permanent magnet?
- (A) Cobalt Steel (B) Molybdenum steel
(C) Vanadium steel (D) Nickel steel
55. Calculate the RPM for a high speed steel drill of 24 dia in MS (Cutting speed of MS is 30)?
- (A) 1327 (B) 106
(C) 597 (D) 398
56. Which type of tool is used for producing number of bends on the same component clearance for previous bends has to be considered in press brake?
- (A) Flattening tool (B) Radius Tool
(C) Goose neck punch (D) Channel die
57. The operation of forming impressions of figures, letters is called :
- (A) Coining (B) Embossing
(C) Drawing (D) Plunging
58. The process of making clean and scratch free surface is called :
- (A) Polishing (B) Grinding
(C) Sanding (D) None of these
59. Which type of buffing material is a powdered lava, white in colour used for Scrubbing, cleaning and polishing?
- (A) Tripoli (B) Rogue
(C) Whiting (D) Pumice
60. Which is not a part of portable hand operated pipe bending machine?
- (A) Tripod stand (B) Pipe stock lever
(C) Bleed screw (D) Inside former

61. The rake and poker is used for :
- (A) Remove clinkers from the fire
 - (B) Remove oxides from the soldering bit
 - (C) Remove spatters from the work
 - (D) Remove dents from the sheet
62. The magnetic effect of DC disturbs the arc in Arc welding is called :
- (A) Long arc
 - (B) Arc blow
 - (C) Short arc
 - (D) None of these
63. GUI stands for in Auto CAD
- (A) Graphical User Interfere
 - (B) Geometrical User Interfere
 - (C) Geometrical User Interface
 - (D) Graphical User Interface
64. The distance between the junction of the metals and the point where the weld metal touches the base metal is called
- (A) Weld length
 - (B) Leg length
 - (C) Weld face length
 - (D) Penetration length
65. In welding test, which one is non destructive test:
- (A) Bend test
 - (B) Fracture test
 - (C) Water gravity test
 - (D) None of these
66. Which dolly is used for remove dents on long depth mudguard?
- (A) Heel shaped dolly
 - (B) Domed square dolly
 - (C) Round and curve edge dolly
 - (D) Curvature dolly
67. How many stages are consider for piston type compressor (2500 pressure (PSI) capacity)?
- (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
68. Which function key is used for toggles between ortho mode in Auto CAD?
- (A) F5
 - (B) F3
 - (C) F4
 - (D) F8

69. Which command is used for create parallel single copy of a line or arc (Auto CAD)?
- (A) Explode (B) Offset
(C) Pedit (D) Oops
70.  This symbol is used for (Auto CAD)?
- (A) Midpoint of a line or an arc (B) Closet point on an entity
(C) Centre of a circle or an arc (D) End point
71. Which development method is used for transition forms of pieces?
- (A) Parallel line (B) Radial line
(C) Triangulation (D) None of these
72. The water jet nozzles are typically made of :
- (A) Sintered boride (B) Sirconated boride
(C) Thoriated Boride (D) None of these
73. The technique is used to reduce high spots which are sometimes formed as a Panel is planish This type of hammering is called.
- (A) Direct hammering (B) Indirect hammering
(C) Pick hammering (D) Spring hammering
74. The volume of air sucked by the compressor during its suction stroke :
- (A) Cylinder volume (B) Swept volume
(C) Clearance volume (D) None of these
75. Ferrous metallic surface should be coated with a good _____ before painting enamel.
- (A) Wood primer (B) Emulsion
(C) Greasing (D) None of these
76. The process of changing the liquid in tiny droplets is called:
- (A) Vaporization (B) Atomization
(C) Compression (D) Purification

77. Which flame is used for Stellite alloy welding?
 (A) Neutral (B) Oxidizing
 (C) Carburizing (D) None of these
78. _____ is a special type of poly line which is made up of arc segments, it has two Properties width and closed in Auto CAD.
 (A) DONOT (B) TEXT
 (C) LIMITS (D) LAYER
79. Point angle of chisel used for cutting aluminium :
 (A) 40° (B) 50°
 (C) 55° (D) 30°
80. Iron is heated with certain temperature in Zinc dust, zinc absorbed into the surface of iron is called ?
 (A) Tinning (B) Cladding
 (C) Sherardizing (D) Plastic coating
81. The following line is used for hidden outlines.
 (A) Dashed thick (B) Dashed thin
 (C) Chain thin (D) Chain thick
82. _____ Function key is used for toggles between objects snap tracking.
 (A) F8 (B) F6
 (C) F5 (D) F11
83. The device is used for chasing or reconditioning the damaged threads:
 (A) Die (B) Tap
 (C) Die wrench (D) Die nut
84. Heat affected zone in plasma arc
 (A) 6.35 mm (B) 2.54 mm
 (C) 3.35 mm (D) 4.25 mm
85. _____ Command is used to set a new co ordinate system by shifting the working X,Y Plane to the decide location in Auto CAD
 (A) UCS (B) V POINT
 (C) ZOOM (D) SHADEMODE

86. The points are located with respect to the object (0,0). The syntax is X,Y in Auto CAD. This method is called :
- (A) Relative co ordinate method
 - (B) Relative polar co ordinate method
 - (C) Absolute coordinate method
 - (D) None of these
87. Government clip is also known as :
- (A) Cup clip
 - (B) Drive clip
 - (C) Nailing clip
 - (D) S clip
88. Melting point of aluminium is :
- (A) 560°C
 - (B) 660°C
 - (C) 760°C
 - (D) 1023°C
89. Which type of threads is used in Oxygen gas cylinder?
- (A) Left hand
 - (B) Right hand
 - (C) Both (A) and (B)
 - (D) None of these
90. To make a metal surface smooth by hammering it over a strike or block is called:
- (A) Piercing
 - (B) Blanking
 - (C) Leveling
 - (D) Planishing
91. Hexagon socket wrenches also known as :
- (A) Screw driver
 - (B) Allen key
 - (C) Spanner
 - (D) None of these
92. Lazy tong is a
- (A) Forging tool
 - (B) Braking mechanism
 - (C) Hand operated riveting tool
 - (D) Lubricating device
93. The colour of acetylene gas cylinder is :
- (A) Maroon
 - (B) Black
 - (C) Brown
 - (D) None of these

94. Not a properties of aluminium strip :
- (A) Rust proof (B) Dimensionally stable
(C) Fine finish (D) High Brittle
95. The process of covering an area of metal with molten solder is called :
- (A) Tinning (B) Swaging
(C) Nibbling (D) None of these
96. The process of sheet metal disc rolled to specific shape by forcing the metal to flow over a suitable mandrel is known as ?
- (A) Grinding (B) Bending
(C) Spinning (D) Forming
97. What is the principle of spot welding machine?
- (A) Electric induction (B) Electric resistance
(C) Electric capacitance (D) None of these
98. The width of cut produced by a gas cutting operation :
- (A) Drag (B) Bevel
(C) Gouging (D) Kerf
99. A basic plasma cutting machine employs :
- (A) DC PN (B) DC EP
(C) DC EN (D) None of these
100. Melting point of Nickel is :
- (A) 490° C (B) 1083° C
(C) 651° C (D) 1452° C

SPACE FOR ROUGH WORK

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