

150/2016

1. Which one of the process requires bare metal electrode and granular flux ?  
(A) MAG welding (B) MIG welding  
(C) Submerged arc welding (D) Stud welding
2. Spot welding, seam welding, flash butt welding is different methods of \_\_\_\_\_.  
(A) Resistance welding (B) Friction welding  
(C) Thermit welding (D) Electro slag welding
3. Which type of electrode is used in submerged arc welding ?  
(A) Cored electrode (B) Light coated electrode  
(C) Heavy coated electrode (D) Bare wire
4. In which position is SAW welding is done ?  
(A) Flat and Horizontal (B) Flat and Vertical  
(C) Flat and Overhead (D) Horizontal and Vertical
5. Which one of the following is a resistance welding process ?  
(A) Spot welding (B) Thermit welding  
(C) Forge welding (D) Explosive welding
6. Shielded metal arc welding is classified under the process of \_\_\_\_\_.  
(A) Electric resistance welding (B) Electric arc welding  
(C) Special welding (D) Electro gas welding
7. Punches used for marking purpose are made of \_\_\_\_\_.  
(A) Cast iron (B) Mild steel  
(C) Stainless steel (D) High carbon steel
8. A ball peen hammer is specified by \_\_\_\_\_.  
(A) Its weight (B) Length of handle  
(C) Shape of the face (D) The material of the head

9. The tool used to draw lines on a chalk coated metal surface is called \_\_\_\_\_.
- (A) Wing compass (B) Try square  
(C) Steel rule (D) Scriber
10. It is a resistance welding process in which roller type electrodes are used :
- (A) Spot welding (B) Seam welding  
(C) Projection welding (D) Flash butt welding
11. Which of the following metal plates can not be joined by projection welding ?
- (A) Thin plates (B) Copper plates  
(C) Mild steel plates (D) Stainless steel plates
12. What is the purpose of copper coating on the mild steel filler wire ?
- (A) To heat faster (B) To increase strength  
(C) To avoid rusting (D) For good appearance
13. Which mechanical properties of metal give resistance to pulling force ?
- (A) Toughness (B) Ductility (C) Hardness (D) Tensile strength
14. A key hole is to be maintained through out in the first run of butt joint to ensure :
- (A) Crack free joint (B) Proper root penetration  
(C) Proper bead width (D) Good reinforcement
15. Which of the following metal has highest thermal conductivity ?
- (A) Zinc (B) Copper (C) Mild steel (D) Aluminum
16. Over heating of blow pipe nozzle to be avoided because it will cause \_\_\_\_\_.
- (A) Flash back (B) Consume more gases  
(C) Create undercut (D) Cause burn through
17. Oxygen gas will change into liquid condition at \_\_\_\_\_.
- (A)  $-195.8^{\circ}\text{C}$  (B)  $-182.9^{\circ}\text{C}$  (C)  $-181.7^{\circ}\text{C}$  (D)  $-172.8^{\circ}\text{C}$

18. Which of the following metal has the highest melting temperature ?  
(A) Copper (B) Tungsten (C) Aluminum (D) Mild steel
19. In which position is electro slag welding generally done ?  
(A) Horizontal (B) Vertical (C) Flat (D) Overhead
20. One of the advantages of submerged arc welding is \_\_\_\_\_ .  
(A) High deposition rate and speed (B) Quality weld  
(C) Thick metal can be weld (D) All of above
21. Which of the following are ferromagnetic materials ?  
(A) Aluminum, Iron, Copper (B) Iron, Copper, Nickel  
(C) Iron, Cobalt, Nickel (D) Copper, Aluminum, Silver
22. In the solvent removable penetrant process, excess penetrant is removed with :  
(A) A water spray  
(B) A hydrophilic scrubber  
(C) A solvent spray  
(D) Clean, lint free towels slightly moistened with solvent
23. The limitation of a liquid penetrant test is :  
(A) Only surface breaking discontinuities can be detected  
(B) Porous materials cannot be tested  
(C) There is cleaning problem following penetrant inspection in some cases  
(D) All of the listed limitations are correct
24. Gas welding tip orifice should only be cleaned with :  
(A) Soft copper wire (B) Tip cleaner  
(C) A small drill (D) Steel wire

25. The function of injector in Low Pressure blow pipe is :
- (A) High pressure oxygen draws acetylene and increases its velocity
  - (B) Decrease the velocity of oxygen equal to acetylene velocity
  - (C) To check the flow of oxygen
  - (D) Increase the velocity of oxygen
26. The nozzles are generally made of copper because :
- (A) Rust will not take place
  - (B) Air tight fitting
  - (C) Cheaper
  - (D) High melting point
27. The blow pipe fitted with injector will prevent :
- (A) Flash back
  - (B) Reverse flow of acetylene gas
  - (C) Flow of high pressure oxygen
  - (D) Defects
28. For removing water vapors from the acetylene gas, the material used is \_\_\_\_\_.
- (A) Filter wool
  - (B) Steel wool
  - (C) Pumice stone
  - (D) Paper filter
29. Glycerin is added to water in the hydraulic back pressure valve in order to \_\_\_\_\_.
- (A) Prevent overheating
  - (B) Prevent freezing
  - (C) Cool
  - (D) Remove salt content
30. Why acetylene cylinders should always be kept upright/vertical position ?
- (A) To save floor space
  - (B) To get uniform flow of gas
  - (C) To help welding in vertical position
  - (D) To avoid the flow of acetone liquid along with gas
31. To set a oxidizing flame :
- (A) Open acetylene gas and ignite to burn in air
  - (B) Set a neutral flame and decrease acetylene
  - (C) Set a neutral flame and increase acetylene
  - (D) Set a neutral flame and decrease oxygen

32. Which type of flame is used to weld brass ?  
(A) Air acetylene flame (B) Neutral flame  
(C) Oxidizing flame (D) Carburizing flame
33. What is the maximum thickness of MS sheet that can be weld in leftward technique ?  
(A) 12 mm (B) 8 mm (C) 10 mm (D) 5 mm
34. The angle of blow pipe to the line of weld in leftward welding technique is :  
(A)  $40^\circ - 50^\circ$  (B)  $50^\circ - 60^\circ$  (C)  $60^\circ - 70^\circ$  (D)  $70^\circ - 80^\circ$
35. Copper should not be used in acetylene gas piping because :  
(A) Copper react with acetylene and form explosive compound  
(B) Copper is weak metal  
(C) Acetylene cannot compressed  
(D) Copper has high expansion
36. The greatest amount of heat is produced in an oxyacetylene flame at \_\_\_\_\_.  
(A) Inner cone (B) Outer envelope  
(C) The out let tip of nozzle (D) Just ahead of inner cone
37. Purpose of fitting a hose protector is to \_\_\_\_\_.  
(A) Permit the gas to flow from blow pipe to cylinder  
(B) Avoid return flow of gas to cylinder  
(C) Permit the gas flow in both directions  
(D) Avoid gas flow to blow pipe
38. The maximum pressure of acetylene gas that can be compressed in a cylinder :  
(A)  $1 \text{ kg/cm}^2$  (B)  $15 \text{ kg/cm}^2$  (C)  $100 \text{ kg/cm}^2$  (D)  $150 \text{ kg/cm}^2$
39. The function of gas regulator is \_\_\_\_\_.  
(A) To get different type of flame (B) To mix both gases  
(C) To change temperature (D) To set working pressure

40. The function of filler rod in gas welding is \_\_\_\_\_.
- (A) To obtain additional elements      (B) To increase the fluidity  
(C) To obtain good penetration      (D) To help welding
41. The safety device used to protect the eyes while grinding is \_\_\_\_\_.
- (A) Hand screen      (B) Helmet  
(C) Chipping goggles      (D) Chipping screen
42. Name the flux used for brazing of MS sheets :
- (A) Hydrochloric acid      (B) Zinc chloride  
(C) Tallow resin      (D) Borax
43. Acetylene gas is dissolved in \_\_\_\_\_ liquid in cylinder.
- (A) Water      (B) Acetone  
(C) Calcium hydroxide      (D) Kerosene
44. The colour code for identifying oxygen gas cylinder is \_\_\_\_\_.
- (A) Maroon      (B) Black      (C) Blue      (D) Red
45. Oil and grease can react violently, when contact with high pressure \_\_\_\_\_.
- (A) Carbon dioxide      (B) Propane  
(C) Oxygen      (D) Hydrogen
46. When a hose protector is fitted, the gas can only flow \_\_\_\_\_.
- (A) Blow pipe to cylinder      (B) Cylinder to blow pipe  
(C) Both ways      (D) Will not flow
47. Soldering is a method of joining two metal pieces by means of a third metal having relatively \_\_\_\_\_ melting temperature.
- (A) Low      (B) High      (C) Equal      (D) Above
48. The flow of molten solder in the gap between the work pieces is driven by \_\_\_\_\_ force.
- (A) Centrifugal      (B) Capillary      (C) Viscosity      (D) Wetting

49. Solders melt at a temperature \_\_\_\_\_ °C.  
(A) Above 350 (B) Below 350  
(C) Above 450 (D) None of the above
50. Soldering flux has a melting point \_\_\_\_\_ the melting point of solder.  
(A) Low (B) High (C) Equal (D) Above
51. In brazing the filler material melt at a temperature \_\_\_\_\_ the melting temperature of the material to be joined.  
(A) Below (B) High (C) Equal (D) Above
52. Soldering of MS sheets takes place at a temperature of \_\_\_\_\_.  
(A) 150°C (B) 400°C (C) 250°C (D) 850°C
53. One of the necessities of welding transformer is \_\_\_\_\_.  
(A) To reduce voltage and increase current  
(B) To convert electrical energy to mechanical  
(C) To get defect free weld  
(D) To control distortion
54. Which one of the following welding machine can supply AC or DC ?  
(A) Engine driven Generator (B) Motor driven Generator  
(C) Transformer (D) Transformer rectifier
55. The value of open circuit voltage in manual metal arc welding is \_\_\_\_\_ volt.  
(A) 40 - 60 (B) 60 - 70 (C) 60 - 150 (D) 110 - 220
56. Forge welding is classified as :  
(A) Fusion welding without pressure  
(B) Fusion welding with pressure  
(C) Non-fusion welding with pressure  
(D) Non-fusion welding without pressure

57. If main electric supply is not available, we can do arc welding with \_\_\_\_\_.
- (A) Motor generator set                      (B) Transformer set  
(C) Engine generator set                      (D) Rectifier set
58. The amount of current setting for welding depends upon \_\_\_\_\_.
- (A) The thickness of plate                      (B) The type of current AC/DC  
(C) Type of metal to be weld                      (D) The diameter of electrode used
59. While selecting straight polarity \_\_\_\_\_.
- (A) Electrode is connected to positive side  
(B) Base metal connected to positive side  
(C) 1/3<sup>rd</sup> heat developed in base metal  
(D) 2/3<sup>rd</sup> heat developed in electrode
60. The arc welding transformer is a \_\_\_\_\_ transformer.
- (A) Step down                                      (B) Step up  
(C) One to one                                      (D) Increasing voltage
61. The easy position to weld is \_\_\_\_\_.
- (A) Flat                      (B) Vertical                      (C) Horizontal                      (D) Overhead
62. During over head welding it is more convenient to use \_\_\_\_\_.
- (A) Welding goggles                                      (B) Helmet  
(C) Hand screen                                      (D) Sun glass
63. Depth of fusion from the surface of the weld metal is known as \_\_\_\_\_.
- (A) Fusion zone                                      (B) Heat affected zone  
(C) Throat thickness                                      (D) Leg length
64. Electrode connected to positive terminal :
- (A) Straight polarity                                      (B) Wrong polarity  
(C) Reverse polarity                                      (D) Electrode to holder

65. More spatters are due to \_\_\_\_\_.
- (A) Low current (B) More speed (C) Excess current (D) Big size electrode
66. In DC supply the heat distribution is more at \_\_\_\_\_.
- (A) Positive terminal (B) Negative terminal  
(C) Equal in both terminal (D) No variation
67. The effect of arc blow will be totally absent in \_\_\_\_\_.
- (A) DC straight polarity (B) DC reverse polarity  
(C) AC welding (D) Welding with long arc
68. The electrodes are manufactured in two standards lengths namely :
- (A) 350 mm and 450 mm (B) 350 mm and 250 mm  
(C) 400 mm and 500 mm (D) 10" and 18"
69. A lap joint has :
- (A) Parts in the same plane (B) Overlapping parts  
(C) Parts in the same plane (D) A part perpendicular to another part
70. In the 5G position, pipe must be located in a \_\_\_\_\_ axis.
- (A) Vertical axis (B) Fixed horizontal axis  
(C) Rotating vertical axis (D) Fixed vertical axis
71. Which is **not** coming under ferrous metal ?
- (A) Steel (B) Iron (C) Copper (D) Cast iron
72. Which is **not** an alloy ?
- (A) Steel (B) Brass (C) Stainless steel (D) Iron
73. Which of these devices is/are acceptable and safe for lighting a welding torch ?
- (A) Matches (B) Cigarette lighter (C) Spark lighter (D) All of the above

74. What is the duty cycle of a welding machine designed to operate continuously for 7 out of every 10 minutes ?  
(A) 10 percent (B) 70 percent  
(C) 30 percent (D) None of the above
75. Name the instrument/tool used for transferring and setting of distances ?  
(A) "L" square (B) Steel rule (C) Wing compass (D) Straight edge
76. Ammonium Chloride is used as a flux for soldering ?  
(A) Steel (B) Aluminum (C) Galvanized iron (D) Stainless steel
77. Name of the instrument used to check the perpendicularity of the branch pipe with the main pipe of a pipe T joint ?  
(A) Protractor (B) Try square (C) Spirit level (D) Straight edge
78. Which one of the following metals will **not** permit X-rays to pass-through ?  
(A) Stainless steel (B) Aluminum (C) Lead (D) Tin
79. The distance between the root and toe of a fillet weld is called \_\_\_\_\_.  
(A) Root gap (B) Leg length (C) Reinforcement (D) Throat thickness
80. Thermit mixture used in thermit welding can be ignited with an initial temperature of \_\_\_\_\_.  
(A) 1500°C (B) 1000°C (C) 1200°C (D) 500°C
81. The Lakshadweep (Laccadive) is situated in :  
(A) The Bay of Bengal (B) Arabian Sea  
(C) Indian Ocean (D) Persian Gulf
82. World Forest Day is celebrated on :  
(A) March 21 (B) July 10 (C) June 05 (D) October 10
83. Name the most densely populated state in India according to the census 2011 :  
(A) Uttar Pradesh (B) West Bengal (C) Haryana (D) Bihar