

Duration: 30 Mins

Total Marks: 109

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1. Which type of polarity is used in welding non ferrous metals?

- A) Reverse polarity
- B) AC Transformer
- C) DC Motor generator
- D) Straight polarity

2. What is the name of short weld made prior to the welding to hold the plates in perfect alignment?

- A) Strong weld
- B) Bead weld
- C) String bead
- D) Tack weld

3. What type of gas flame is used to weld 2mm mild steel by brazing method?

- A) Oxidising flame
- B) Neutral flame
- C) Oxy-hydrogen flame
- D) Carburising flame

4. Which is used to cut thin pipes of smaller sizes?

- A) Hack sawing
- B) Pipe cutter
- C) Lathe parting tool
- D) Chisel

5. Which type of cast iron possess higher compressive strength?

- A) White cast iron
- B) Grey cast iron
- C) Nodular cast iron
- D) Malleable cast iron

6. Which process causes the increase in the strength of part after fabrication?

- A) Hardening
- B) Quenching
- C) Normalising
- D) Tempering

7. Which of the following aluminium alloys consists of 1% iron & silicon?

- A) Duralumin
- B) Commercially pure aluminium
- C) Aluminium cast alloy
- D) Wrought alloy

8. Which size of CCMS filler rod is to be used for welding plate of 8mm thick with ?V? edge preparation?

- A) Dia 3.15 mm
- B) Dia 5.0 mm
- C) Dia 4.0 mm
- D) Dia 6.3 mm

9. What is the welding position as per ASME for a pipe joint held vertically, welding in a horizontal line?

- A) 1G
- B) 5G
- C) 2G
- D) 6G

10. What thickness of plate, gas welding by forehand technique can be used without edge preparation?

- A) Up to 3.15 mm
- B) Up to 4 mm
- C) Up to 5 mm
- D) Up to 2.5 mm

11. How the repairs of cracks in cast iron component carried out?

- A) Cracks repaired using appropriate electrode
- B) Similar to arc welding mild steel plate
- C) Local preheating, leftward welding technique flame heating each layer
- D) By using clamps during welding process

12. Which one of the defect is caused by low current in arc welding?

- A) Excessive penetration
- B) Poracity
- C) Under cut
- D) Lack of fusion

13. What is the name of the steel material which are not weldable?

- A) High carbon steel
- B) Austenitic stainless steel
- C) Medium carbon steel
- D) Ferrite and martensitic stainless steel

14. Which type of cast iron offers greater resistance to shock?

- A) White cast iron
- B) Malleable cast iron
- C) Nodular cast iron
- D) Grey cast iron

15. What type of edge preparation is needed, for gas welding a pipe, with wall thickness 6mm?

- A) Single -V
- B) Square edge without root gap
- C) Single bevel
- D) Square edge with root gap

16. What is the pre-heating temperature of cast iron?

- A) 350 to 450 Degree Centigrade
B) 300 to 350 Degree Centigrade
C) 200 to 310 Degree Centigrade
D) 250 to 350 Degree Centigrade

17. What flux is used in welding brass?

- A) Cryolite and berium chloride
B) Zinc chloride and potassium dichromate
C) Borax paste
D) Anti - borax

18. What is the composition of acetylene gas?

- A) C - 82.3% H - 17.7%
B) C - 90% H - 10%
C) C - 92.3% H - 7.7%
D) C - 72.3% H - 27.7%

19. What is the base for selecting the nozzle size for gas welding of a pipe?

- A) Diameter of pipe
B) Groove angle
C) Welding position
D) Pipe wall thickness

20. What should be the bevel angle for edge preparation of 6mm thick pipe welding?

- A) 70 Degree - 75 Degree
B) 40 Degree - 45 Degree
C) 30 Degree - 35 Degree
D) 60 Degree - 65 Degree

21. What procedure is followed in welding pipe in 5 G position?

- A) Pipe welded 12'o clock to 6'o clock downhill
B) Rotate pipe and weld vertically
C) Pipe not rotated weld verticality
D) Pipe not rotated and pipe axis 450

22. What should be the pre - heating temperature of aluminium job for gas welding?

- A) 250 Degree Centigrade - 400 Degree Centigrade
B) 350 Degree Centigrade - 400 Degree Centigrade
C) 300 Degree Centigrade - 400 Degree Centigrade
D) 200 Degree Centigrade - 400 Degree Centigrade

23. What is the cause of porosity in arc welding?

- A) Over size electrodes
B) Low hydrogen electrodes
C) Carbon electrodes
D) Damp electrodes

24. What will happen if the current is low while arc welding?

- A) Formed over lap
B) Electrode fused speedly
C) Spatters are more
D) Base metal edges not melt properly

25. What is the angle of pipe axis with the base for making an elbow joint?

- A) 30 Degree
B) 90 Degree
C) 75 Degree
D) 45 Degree

26. Which are the common alloying element of brass?

- A) Copper & zinc
B) Antimony and tin
C) Copper and tin
D) Bismuth and tin

27. What is the effect of expansion and contraction due to heat in welding?

- A) Distortion
B) Peening
C) Metal force
D) Arc blow

28. Which size of filler rod should be used to weld 2mm thick MS sheet?

- A) 1.6 mm
B) 2.0 mm
C) 3.15 mm
D) 2.5 mm

29. Which element is present in contact electrodes in large proportion?

- A) Manganese
B) Carbon
C) Iron powder
D) Silicon

30. How a pipe is specified?

- A) Outer dia only
B) Dia only
C) Outer dia x inner dia x length
D) Length only

31. What is the grade of hacksaw blades with pitch 0.8mm?

- A) Rough
B) Course
C) Fine
D) Medium

32. What method of heating is done to remove bending distortion of weld joint with wedge shaped area?

- A) Pipe - needle heating
B) Spot heating
C) Triangular heating
D) Checker - board heating

33. What is the purpose of setting root gap?

- A) To over some under cut
B) To control distortion
C) Gap get closed due to expansion
D) To get good penetration

34. Why deposited bead is not in uniform size?

- A) Variation in speed of travel and angle
B) Incorrect flame setting
C) Wrong angle of filler rod
D) Wrong angle of blow pipe

35. What benefit we get out of a carburising flame?

- A) Suitable for brass, copper welding
B) Suitable for stellite, flame cleaning
C) Suitable for mildsteel, stainless steel
D) Suitable for pure aluminium, cast iron & brass welding

36. How is the scale and oxide removed from stainless steel weld?

- A) Cooling in oil
- B) Peening
- C) Heating up to 9500 to 11000C and quenched in water
- D) Cooling in sand

37. Which filler rod to be used for gas welding aluminium?

- A) Copper - Silver alloy
- B) Silicon - manganese
- C) Pure aluminium, 5% silicon aluminium alloy
- D) Silicon - brass

38. What type of preheating is done only at the portions to be welded?

- A) Local preheating
- B) Full preheating
- C) Indirect preheating
- D) Direct preheating

39. How is the electrode size identified?

- A) Length of electrode
- B) Thickness of flux coated
- C) Diameter of inner core wire
- D) Diameter (over all) of electrode

40. Which of the following produces unstable arc?

- A) Too long arc length
- B) Short arc length
- C) Normal arc length
- D) Long arc length

41. Which accessory is used to protect the eyes during gas welding?

- A) Hand screen
- B) Grinding goggles
- C) Colour goggles
- D) Helmet

42. Which of the following metals have high thermal conductivity?

- A) Copper
- B) Brass
- C) Bronze
- D) Aluminium

43. What is the main purpose of 'Normalising' steel?

- A) To control hardness
- B) To make welding operation easier
- C) To prevent cracking
- D) To produce fine grain of uniform structure

44. What is the name of last bit of an discarded electrode?

- A) Waste end
- B) Red end
- C) Dead end
- D) Stub end

45. What is the purpose of oxygen lever in gas cutting?

- A) Release excess oxygen and to push the molten metal
- B) Push the molten metal
- C) Remove the excess metal
- D) Pre heat the base metal

46. What is the main reason, that aluminium is difficult to weld?

- A) Less weight
- B) High thermal conductivity
- C) Better strength weight ratio
- D) Oxide formation

47. Which system of welding is free from 'Arc blow'?

- A) DC Reverse polarity
- B) DC straight polarity
- C) Welding with long arc
- D) AC welding

48. How many equal divisions should be made while developing a 'T' pipe joint?

- A) 4 equal divisions
- B) 6 equal divisions
- C) 12 equal divisions
- D) 9 equal divisions

49. What is the welding defect in base metal gets melted and a groove formed along the toe of the weld?

- A) Blow holes
- B) Undercut
- C) Lack of penetration
- D) Reinforcementc

50. Which type of filler rod shall contain higher percentage of iron?

- A) Non - ferrous
- B) Alloy type of non - ferrous metals
- C) Ferrous
- D) Alloy type of ferrous metals

51. What is the process of heating steel to specific temperature and cooling suddenly?

- A) Hardening
- B) Tempering
- C) Annealing
- D) Quenching

52. What is the welding defect, with no fusion of base metal on root face, side face or between the weld run?

- A) Porosity
- B) Lack of penetration
- C) Under cut
- D) Lack of fusion

53. Which type of cast iron possess higher hardness?

- A) Malleable cast iron
- B) White cast iron
- C) Nodular cast iron
- D) Grey cast iron

54. Which gauging nozzle is selected for rivet head cutting?

- A) Bent nozzle with three pre-heating holes
- B) Straight nozzle with six pre-heating holes
- C) Bent nozzle with six holes
- D) Flute cutting straight with six holes

55. Which type of arc does not have control on the molten pool?

- A) Too short arc length
- B) Short arc length

- C) Long arc length D) Normal arc length

56. What is the current range required for 3.15mm dia MS electrode in arc welding?

- A) 50 - 60 A B) 70 - 80 A
C) 40 - 50 A D) 100 - 110 A

57. What is the defect due to non cleaning the surfaces before welding?

- A) Small cracks in bead B) Surface porosity
C) Lack of fusion D) Over lap

58. What is the use of intermediate tacks on a weld setting of plates?

- A) Align and to maintain the position of joint B) To control defects in weld joint
C) To reduce the welding run D) To speed up the welding joint

59. What makes for the buckling of weld joint, in stainless steel during cooling?

- A) Over heated zone B) High thermal conductivity
C) Low thermal conductivity D) Chromium contamination

60. What is the 6'o clock position in CW pipe welding refers to in 5G position?

- A) Down hand position B) Horizontal position
C) Over head position D) Vertical up hill position

61. What is the result of inner cone of flame touching the molten metal while welding?

- A) Cause to porosity B) Cause to flame snape out
C) Cause to back fire D) Cause to over lap

62. What is the reason for the defect of more spatter during arc welding?

- A) Welding current too high B) Insufficient root gap
C) Wrong angle of electrode D) Use of a very short arc length

63. What is the name of small metal particles which are thrown out of the arc during welding?

- A) Spatters B) Slag
C) Stub end D) Weld metal

64. Which size of filler rod should be used to weld 2.5mm thick plates, using nozzle 5 by leftward technique?

- A) 3.15 mm B) 2.50 mm
C) 1.60 mm D) 2.00 mm

65. Which welding the slag inclusion defect will occur?

- A) Manual metal arc welding B) Malattic invert gas welding
C) Tungsten invert gas welding D) Oxy - acetylene gas welding

66. Which type of arc length produces poor penetration?

- A) Normal arc length B) Too long arc length
C) Long arc length D) Short arc length

67. Which one of the following methods of welding is not a method used to control distortion?

- A) Skip welding B) Right hand welding
C) Intermittent welding D) Back step welding

68. What size of CCMS filler rod is used for finish run of Dia 50mm pipe root welded using Dia 1.65 filler?

- A) Dia 4.0 mm B) Dia 1.6 mm
C) Dia 3.5 mm D) Dia 3.0 mm

69. What should be the angle of filler rod, by rightward welding?

- A) 30 Degree - 40 Degree B) 60 Degree - 70 Degree
C) 50 Degree - 60 Degree D) 40 Degree - 50 Degree

70. What are the four clock positions, in pipe welding?

- A) 6, 12, 3, 9'o clock points B) 10,4, 1, 7'o clock points
C) 11, 5, 8, 2'o clock points D) 9,3, 12, 6'o clock points

71. What are the defects in generated acetylene gas?

- A) Hydrogen, lime dust, ammonia & water vapour B) Hydrogen, dust particles, ash
C) Carbon monoxide unburit ash D) Oxygen, hydrogen & carbon

72. Which one of the below is to control distortion?

- A) Use small size electrode B) Use large size electrode
C) Use more passes with small electrode D) Use few passes with large dia electrode

73. Which element filler rod is used to weld stainless steel plates?

- A) Molybdenum, columbiam B) Osmium
C) Punodium D) Argentinum

74. Which test indicates the hardness of a metal?

- A) Ultrasonic inspection B) Brinell test
C) Tensile test D) Charpy izod test

75. What flux is to be used for gas welding stainless steel plates?

- A) Borox flux
C) Zinc chloride and potassium dichromate paste
- B) Anti - Borox
D) Cryolite and berium chloride

76. What is the main function of the flux coating in electrodes?

- A) To stabilize the arc
C) To control arc temperature
- B) To increase welding current
D) To prevent rusting

77. What is the bevel angle for pipe welding butt joint if wall thickness is more than 5mm?

- A) 90 Degree
C) 80 Degree
- B) 60 Degree
D) 75 Degree

78. What defect will occur due to incorrect tilt of blow pipe?

- A) Weld porosity
C) Lack of root penetration
- B) Under cut in weld joints
D) Crater at end

79. What is the cause of hair line separation in the bead in arc welding?

- A) Long arc length
C) Fast cooling
- B) Wrong selection of electrode
D) Slow cooling

80. Which type welding uses a non - ferrous filler with melting point above 450 Degree, than base metal?

- A) Soldering
C) Brazing
- B) Gas welding
D) Arc welding

81. What do you call the non - coated electrodes?

- A) Deep penetration electrode
C) Bare electrode
- B) Row electrode
D) Base electrode

82. What is the purpose of copper coating on mild steel filler rod used in gas welding?

- A) Increased filler dia
C) Water proof
- B) Moisture proof
D) Rust proof

83. What is the reason for lack of fluidity in molten metal in braze welding?

- A) Improper cleaning and less use of flux
C) Over heating
- B) Improper flame
D) Inadequate preheating

84. What type of defect will occur due to evaporation of the trapped gas from the liquid metal?

- A) Arc blow
C) Porosity
- B) Over lap
D) Crack

85. Which metal in welding process is subjected to ?Weld decay? defect?

- A) Stainless steel
C) Brass
- B) Copper
D) Mild steel

86. How the construction of a nozzle for gouging is identified?

- A) Bent nozzle with sectorial preheating holes
C) Straight nozzle with single preheating hole
- B) Fully bent nozzle with circular preheating holes
D) Slightly bent nozzle with circular preheating six holes

87. What is the rule for deciding the length of intermediate tacks?

- A) 5 times the plate thickness
C) 50mm irrespective of plate thickness
- B) 3 to 4 times plate thickness
D) 2 to 3 times plate thickness

88. How many groups of mild steel pipes are there?

- A) Two groups
C) Four groups
- B) Three groups
D) Five groups

89. What is the base for selecting the nozzle size for gas welding of a pipe?

- A) Diameter of pipe
C) Welding position
- B) Groove angle
D) Pipe wall thickness

90. What does the letter ?X? indicate in the electrode classification of EB5426 H1 J X?

- A) Radio graphic quality electrode
C) Hydrogen controlled electrode
- B) Covered electrode
D) Increase metal recovery

91. What does the third digit of AWS codification in EB 5426HJX represent?

- A) Type of tensile strength
C) Type of welding position
- B) Type of covering
D) Type of current

92. How many segments are to be selected for welding 50 mm j pipe?

- A) 6 segments
C) 8 segments
- B) 3 segments
D) 4 segments

93. Which type of stainless steel is weldable?

- A) Stabilized type
C) Nickel type
- B) Ferrite type
D) Chromium type

94. Which heat treatment process causes the reduction of brittleness in the steel?

- A) By normalising
- C) By hardening

- B) By annealing
- D) By tempering

- C) Rotate pipe and deposit weld vertical

- D) Pipe not rotated and pipe axis 45 Degree angle deposit weld flat, vertical

95. What is the defect of metal flowing into the surface of base metal without fusing it?

- A) Under cut
- C) Over lap
- B) Lack of penetration
- D) Lack of fusion

96. Which welding process enables to weld dissimilar metals?

- A) Fusion welding
- C) Spot welding
- B) Seam welding
- D) Brazing

97. What are the standard electrode lengths available?

- A) 500mm and 600mm
- C) 400 mm and 500 mm
- B) 250 mm and 350 mm
- D) 350 mm and 450 mm

98. What is the percentage of carbon in medium carbon steel?

- A) 0.30% to 0.6%
- C) 0.6% to 1.2%
- B) 0.05% to 0.8%
- D) 0.05% to 0.30%

99. Which type of cast iron is soft?

- A) White cast iron
- C) Grey cast iron
- B) Nodular cast iron
- D) Malleable cast iron

100. What is the process of hot weld joint rapidly hammered to relieve internal stresses?

- A) Annealing
- C) Straightening
- B) Peening
- D) Heat treatment

101. What method is followed to make a circular gas cutting?

- A) Using a guide clamp fitted to torch body
- C) Manual rotation on the circumference of the circle
- B) Using hand as a guide
- D) Step by step cutting circular segments

102. What procedure is to be followed for welding pipes under 6G position?

- A) Pipe not rotated weld deposit horizontal
- B) Pipe not rotated weld deposit vertical

103. What is the purpose of cleaning of sheets before doing gas welding?

- A) To avoid over lap
- C) To Control distortion
- B) To avoid porosity
- D) To avoid under cut

104. What is the range of pressure used in an oxygen cylinder used in gas welding?

- A) 100 to 150 Kg/cm²
- C) 120 to 150 Kg/cm²
- B) 110 to 150 Kg/cm²
- D) 90 to 150 Kg/cm²

105. What is the name of the steel material that is not weldable?

- A) Ferrite and martensitic stainless steel
- C) High carbon steel
- B) Austenitic stainless steel
- D) Medium carbon steel

106. What size of electrode is used to weld 5 mm wall thickness pipe?

- A) Dia 4.00 mm
- C) Dia 2.5 mm
- B) Dia 3.15 mm
- D) Dia 5.00 mm

107. What is the root run?

- A) The second run is root run
- C) The third run is root run
- B) Backing run
- D) The first run is root run

108. Which filler rod is used for bronze welding of cast iron, malleable iron and copper?

- A) Copper, Zinc, Nickel filler rod
- C) Copper, Phosphorous, filler rod
- B) Manganese, Bronze, filler rod
- D) Copper, Phosphorous alloy filler rod

109. What does the fourth digit indicate as per AWS electrode coding?

- A) Welding position
- C) Tensile strength
- B) Type of flux coating
- D) Welding current