

**Duration: 30 Mins**

**Total Marks: 104**

**Q.ID: ITISKILL3234BZ**

1. What type of lens shade is to be fixed in helmet while doing MIG welding?

- A) A # 11
- B) A # 09
- C) A # 10
- D) A # 12

**Answer: D) A # 12**

2. How to protect from the toxic fumes during welding operation?

- A) Use respirator pad
- B) Use leather apron
- C) Use hand screen
- D) Wear helmet

**Answer: A) Use respirator pad**

3. What is the range of electrode for MAG / CO<sub>2</sub> welding?

- A) 0.5 to 0.7 mm
- B) 0.6 to 0.9 mm
- C) 0.7 to 1.3 mm
- D) 0.8 to 1.6 mm

**Answer: D) 0.8 to 1.6 mm**

4. Which combination of metal and shielding gas give excellent cleaning action in GMAW welding process?

- A) Aluminium, Helium
- B) Copper, Argon
- C) Stainless steel Argon
- D) Magnesium, Argon

**Answer: D) Magnesium, Argon**

5. Which welding method starting of welding done by using steel wool or iron powder?

- A) MMAW
- B) SAW
- C) GMAW
- D) GTAW

**Answer: B) SAW**

6. What protective equipment (PPE) is used to protect hand from burning injury?

- A) Protective shield
- B) Apron
- C) Leather gloves
- D) Goggles

**Answer: C) Leather gloves**

7. Why the argon and CO<sub>2</sub> mixture is used in FCAW?

- A) Smooth dip transfer
- B) Smooth globular transfer
- C) Smooth pulsed transfer
- D) Smooth spray transfer, with minimum slag

**Answer: D) Smooth spray transfer, with minimum slag**

8. What should be the initial angle of two plates in a T joint if

the final angle between them is 90 Degree after completion of welding?

- A) 90 Degree
- B) 85 Degree
- C) 75 Degree
- D) 93 Degree

**Answer: D) 93 Degree**

9. Which type of electrodes are used in MAG/CO<sub>2</sub> welding?

- A) Flux cored electrodes
- B) Flux coated electrodes
- C) Bare wire electrode
- D) Guided bend test Guided bend test Tungsten electrode

**Answer: C) Bare wire electrode**

10. Why carbon and manganese are added to plain thermit mixture on rail welding?

- A) To get smooth finishing
- B) To get hardness
- C) To get good fusion
- D) To get fine welding

**Answer: B) To get hardness**

11. Which heat treatment process is very similar to annealing but the job are allowed to cool in air?

- A) Tempering
- B) Case hardening
- C) Hardening
- D) Normalising

**Answer: D) Normalising**

12. What device is used to protect face from UV and Infra-red radiation during welding?

- A) Plain goggles
- B) Helmet with filtered colour glass
- C) Blue goggles
- D) White goggles

**Answer: B) Helmet with filtered colour glass**

13. What is the operation of heating steel to specific temperature and cooling suddenly?

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

**Answer: D) Quenching**

14. Which heat treatment of steel increases hardness, but decreases strength and ductility?

- A) Annealing
- B) Case hardening
- C) Normalising
- D) Hardening

**Answer: D) Hardening**

15. What is the name of welding process if the arc produced by a consumable metal electrode is protected by inert gas?

- A) Plasma welding
- B) TIG welding
- C) MAG welding
- D) MIG welding

**Answer: D) MIG welding**

16. What type of weld is used on prepared holes of overlap joints?

- A) Tack weld
- B) Plug or slot weld
- C) Backing weld
- D) Fillet weld

**Answer: B) Plug or slot weld**

17. What is the distinct differences between GMAW and FCAW equipments?

- A) Construction of torch and feed rollers
- B) Nozzle and torch
- C) Feed rolls and gas cylinders
- D) Machine and torch

**Answer: A) Construction of torch and feed rollers**

18. What is the ability of metal to cut another metal?

- A) Hardness
- B) Fatigue
- C) Strength
- D) Creep

**Answer: A) Hardness**

19. What is the reason that obstructed joints cannot be welded by electron beam welding process?

- A) Electron beam travel in curved line
- B) Electron beam travel in circular line
- C) Electron beam travel in different direction
- D) Electron beam travel only in straight line

**Answer: D) Electron beam travel only in straight line**

20. Which heat treatment process, if material is softened and suitable for machining?

- A) Annealing
- B) Case hardening
- C) Tempering
- D) Normalising

**Answer: A) Annealing**

21. What is the effect in MIG / MAG welding for a short stick out distance?

- A) Less spatter deposit in nozzle
- B) Porosity in weldment
- C) Arc blow in weldment
- D) More spatter deposit in nozzle

**Answer: D) More spatter deposit in nozzle**

22. Which type of welding is to be used to make joint of thick pipes of rails?

- A) Fusion Thermit welding
- B) Thermit welding
- C) Pressure Thermit welding
- D) Pressure Thermit welding

**Answer: C) Pressure Thermit welding**

23. What is the name of heat treatment process where the steel is reheated to a suitable temperature below the critical point (heating) to improve the toughness and ductility?

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

**Answer: C) Tempering**

24. What type of test is used for vessels, tanks and pipe containing pressure?

- A) Leak or pressure test
- B) Stethoscopic test
- C) Visual inspection
- D) Magnetic particles test

**Answer: A) Leak or pressure test**

25. What is the solution if burn back occurs due to irregular wire feeding in GMAW process?

- A) Cut the kink wire and replace spool
- B) Replace of spool
- C) Cut out kink wire
- D) Adjusted to kinked wire again

**Answer: A) Cut the kink wire and replace spool**

26. Which metal is welded with self shielded type FCAW?

- A) Different metal and different position
- B) Stainless steel
- C) Low alloy steel
- D) Carbon steel

**Answer: D) Carbon steel**

27. What defects occurs to a weld joint, if it is provided with insufficient heat input?

- A) Lack of metal deposit
- B) Lack of fusion
- C) Lack of penetration
- D) Uneven bead deposit

**Answer: C) Lack of penetration**

28. Which type of core wire is suitable for welding carbon steel, alloy steel and stainless steel under FCAW?

- A) Gas shield flux wire
- B) Flux is external and shielded
- C) Flux cored electrode
- D) Used flux core and gas shielded

**Answer: C) Flux cored electrode**

29. What do you call a weld joint having small holes/cavities due to entrapped gas packets?

- A) Lack of penetration
- B) Porosity
- C) Spatter
- D) Lack of fusion

**Answer: B) Porosity**

30. Which welding process is done by chemical reaction between a metal oxide and metal?

- A) Electro slag welding
- B) Election beam welding
- C) Thermit welding
- D) TIG welding

**Answer: C) Thermit welding**

31. What gas combination will reduce spatter defect and improve arc stability in a MIG/MAG welding process?

- A) Helium CO<sub>2</sub>
- B) Argon / CO<sub>2</sub> / O<sub>2</sub>
- C) CO<sub>2</sub> / Neon
- D) Argon / CO<sub>2</sub>

**Answer: B) Argon / CO<sub>2</sub> / O<sub>2</sub>**

32. What is the defect in a weld joint, in which the weld metal melting through base metal resulting in holes?

- A) Lack of penetration
- B) Excessive penetration
- C) Burn through
- D) Distortion

**Answer: C) Burn through**

33. What is the difficulty in starting of arc in GMAW?

- A) Wrong polarity
- B) Excess of voltage
- C) Work piece dirty
- D) Unsteady hand

**Answer: A) Wrong polarity**

34. What is the name of the welding defect, with weld metal contracting during welding process?

- A) Distortion
- B) Excessive penetration
- C) Lack of penetration
- D) Porosity

**Answer: A) Distortion**

35. What type of safety equipment is worn while checking the welding joint of a overhead crane frame?

- A) Hand gloves
- B) Helmet
- C) Apron
- D) Hand screen

**Answer: B) Helmet**

36. How the pre-heating temperature is checked before welding wrought iron or cast metals?

- A) Size of blow holes
- B) Flow of spatters
- C) Count of pin holes
- D) Temperature indicating crayon

**Answer: D) Temperature indicating crayon**

37. Which is the remedy for the contraction of weld metal due to excess of heat input that moves the base metal changes the angle?

- A) Weld small segments and allow cooling
- B) Use clean and dry weld wire
- C) Support on solid surface with two hands
- D) Check gas flow rate and leakage of gas

**Answer: A) Weld small segments and allow cooling**

38. Which is the operation to relieve residual stresses from the welding joint?

- A) Pre-heating
- B) Post heating
- C) Drilling
- D) Peening

**Answer: B) Post heating**

39. Which heat treatment process is employed to remove

brittleness in a chisel?

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

**Answer: C) Tempering**

40. What is the usual torch angle tilt on either side of vertical in GMAW?

- A) 10 Degree - 20 Degree
- B) 25 Degree - 30 Degree
- C) 30 Degree - 35 Degree
- D) 20 Degree - 25 Degree

**Answer: A) 10 Degree - 20 Degree**

41. What type of joints are made by the groove welds in GMA welding?

- A) Lap weld
- B) Corner weld
- C) T weld
- D) Butt weld

**Answer: D) Butt weld**

42. What defects occur to a weld joint, if it is provided with insufficient heat input?

- A) Uneven bead deposit
- B) Lack of penetration
- C) Lack of fusion
- D) Lack of metal deposit

**Answer: B) Lack of penetration**

43. How is thermit mixture ignited?

- A) Diesel
- B) Petrol
- C) Fire stick
- D) By match or magnesium ribbon

**Answer: D) By match or magnesium ribbon**

44. What is the name of the defect occurring to an unsteady hand in GMAW?

- A) Over fusion
- B) Burn through
- C) Waviness of bead
- D) Distortion

**Answer: C) Waviness of bead**

45. What is the purpose of fitting clear glasses on either side of coloured glass in a helmet?

- A) Protect from spatters
- B) Protect from heat
- C) Protect from radiation
- D) Protect from rays

**Answer: A) Protect from spatters**

46. What is the weld defect if wire feed speed too high?

- A) Porosity
- B) Spatters
- C) Lack of penetration
- D) Incomplete fusion

**Answer: B) Spatters**

47. Which is the weld position of GMA welding if the weld is deposited underside of the job?

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

**Answer: A) Over head position**

48. Which gas is generated during GMAW on using CO<sub>2</sub> as shielding gas?

- A) Carbon monoxide
- B) Helium
- C) Oxygen
- D) Argon

**Answer: A) Carbon monoxide**

49. Which gas/mixture is likely to reduce the spatter loss in FCAW?

- A) Argon and CO<sub>2</sub> mixed
- B) Argon and helium mixed
- C) Only CO<sub>2</sub> gas
- D) CO<sub>2</sub> and helium mixed

**Answer: A) Argon and CO<sub>2</sub> mixed**

50. How many Kgs weight of thermit is required against one Kg of wax?

- A) 11 to 15 Kgs
- B) 12 to 16 Kgs
- C) 10 to 15 Kgs
- D) 12 to 14 Kgs

**Answer: D) 12 to 14 Kgs**

51. What is the NDT method, used to detect surface and subsurface defects on ferrous metals, using iron power?

- A) Magnetic particle test
- B) Gamma ray test
- C) Stethoscopic test
- D) X-ray test

**Answer: A) Magnetic particle test**

52. Which type of welding under FCAW, is more suitable for welding all types of steel?

- A) Only use gas shielding flux
- B) Only use gas shielding flux
- C) Only use flux cored electrode
- D) Flux is external and also gas also external

**Answer: A) Only use gas shielding flux**

53. What is the temperature produced by chemical reaction in thermit welding?

- A) 4000 Degree Centigrade
- B) 5000 Degree Centigrade
- C) 5000 Degree fahrenheit
- D) 4000 Degree fahrenheit

**Answer: C) 5000 Degree fahrenheit**

54. What defect will occur in the weld metal if the arc voltage and travel speed is low in MIG / MAG welding?

- A) Wire struck
- B) Under cut
- C) Weld overlap
- D) Blow hole

**Answer: C) Weld overlap**

55. Why the welder's cloth should be free from oil, grease etc, while welding?

- A) To safe guard your inner cloth
- B) To avoid catching fire
- C) To protect the job
- D) To deflect the arc rays

**Answer: B) To avoid catching fire**

56. How much gas flow rate is required to weld a butt joint with 0.8 mm dia MS filler rod of wire feed rate 3 - 4 m/min at 18 to 20 volts?

- A) 10 to 12 Lpm
- B) 7 to 8 Lpm
- C) 12 to 14 Lpm
- D) 8 to 10 Lpm

**Answer: D) 8 to 10 Lpm**

57. What are the gases mixed for shielding in FCAW?

- A) Argon and helium
- B) Argon and O<sub>2</sub>
- C) Argon and CO<sub>2</sub>
- D) Helium and CO<sub>2</sub>

**Answer: C) Argon and CO<sub>2</sub>**

58. Which type of weld is developed electro slag welding?

- A) Gas welding
- B) Submerged arc welding
- C) Resistance welding
- D) Shielded metal arc welding

**Answer: B) Submerged arc welding**

59. Which type of defect is caused if the gas flowing rate is uneven?

- A) Incomplete fusion
- B) Porosity
- C) Under cut
- D) Distortion

**Answer: B) Porosity**

60. Which combination of shield gas in GMAW process produce good arc stability for carbon steel?

- A) CO<sub>2</sub>
- B) Argon + 20% CO<sub>2</sub>
- C) Argon + 5% CO<sub>2</sub>
- D) Pure argon

**Answer: C) Argon + 5% CO<sub>2</sub>**

61. What is the usual length of tack weld in a T-joint in GMAW flat position welding?

- A) 10 mm
- B) 15 mm
- C) 5 mm
- D) 20 mm

**Answer: A) 10 mm**

62. Which type of electrode provides protective slag in flux cored arc welding?

- A) Shielding gas type only
- B) Additional cored flux electrode
- C) External cored electrode
- D) Tubular cored flux electrode

**Answer: D) Tubular cored flux electrode**

63. What is the usual torch angle tilt on either side of vertical in GMAW?

- A) 20 Degree - 25 Degree
- B) 25 Degree - 30 Degree
- C) 30 Degree - 35 Degree
- D) 10 Degree - 20 Degree

**Answer: D) 10 Degree - 20 Degree**

64. What is the purpose of using copper coated filler wire in MIG / MAG welding?

- A) To prevent rust
- B) To prevent rust
- C) To prevent base metal reaction
- D) To prevent atmosphere

**Answer: A) To prevent rust**

65. What is the source of heat to melt the work piece in an electron beam welding?

- A) By high speed electrons
- B) By heat
- C) By current
- D) By beam heat

**Answer: A) By high speed electrons**

66. What is the electrode inclination to the metal surface in T-joint welding of 10 mm thickness metal by down hand position?

- A) 60 Degree
- B) 75 Degree
- C) 30 Degree
- D) 45 Degree

**Answer: D) 45 Degree**

67. Where is electron beam generated, controlled and accelerated?

- A) Vacuum chamber
- B) Electron gun
- C) Electron gun
- D) Atmosphere

**Answer: A) Vacuum chamber**

68. Which shielding gas is used in MIG welding?

- A) Argon + 1% oxygen
- B) Argon + 10% hydrogen
- C) Argon + 20% CO<sub>2</sub>
- D) Argon

**Answer: D) Argon**

69. What is percentage of deposition efficiency in FCAW process?

- A) 60% to 67%
- B) 93% to 97%
- C) 70% to 76%
- D) 80% to 86%

**Answer: D) 80% to 86%**

70. What is the limitation for submerged arc welding process?

- A) Limited to vertical position
- B) Limited to non ferrous metals
- C) Limited to flat and horizontal fillet welds
- D) Limited to over head position

**Answer: C) Limited to flat and horizontal fillet welds**

71. What ampere range is required for setting 1.2mm filler wire for welding mild steel in MIG/MAG welding?

- A) 100 - 225 Amps
- B) 70 - 120 Amps
- C) 90 - 150 Amps
- D) 50 - 100 Amps

**Answer: A) 100 - 225 Amps**

72. What type of operation is generally used in GMAW?

- A) Manual method
- B) Semi automatic
- C) Fully automatic
- D) Automatic

**Answer: B) Semi automatic**

73. How much time it takes for the thermit mould to cool, after welding by thermit process?

- A) 7 Hrs
- B) 12 Hrs
- C) 9 Hrs
- D) 10 Hrs

**Answer: B) 12 Hrs**

74. Which electrode wire is more suitable for carbon steel fabrication in GMAW process?

- A) 70T - 2
- B) 70S - 2
- C) 70S - 3
- D) 70S - 6

**Answer: D) 70S - 6**

75. Why different type of pressure rollers are used in FCAW?

- A) With pressure of tubular wire
- B) Knurled rollers
- C) Without roller of travel wire
- D) Positive feeding without pressure on tubular

**Answer: D) Positive feeding without pressure on tubular**

76. What is the name of metal transfer system in FCAW?

- A) Dip transfer
- B) Purged transfer
- C) Globular transfer
- D) Free flight transfer

**Answer: D) Free flight transfer**

77. What is the type of weld position in which the weld metal is deposited under side of the joint?

- A) Vertical position
- B) Down hand position
- C) Overhead position
- D) Horizontal position

**Answer: C) Overhead position**

78. How the welder observes welding area of the joint in electron beam welding?

- A) Safe optical hand screen having correct shade
- B) Safe optical viewing system containing optical mirror
- C) Safe optical helmet
- D) Safe optical mirror

**Answer: B) Safe optical viewing system containing optical mirror**

79. Which metal surfacing method is ideal for thin layers that can flow to corner and edges of the job?

- A) Submerged arc welding
- B) Oxy-acetylene welding
- C) TIG welding
- D) MIG welding

**Answer: B) Oxy-acetylene welding**

80. How to troubleshoot the burn back problem if the contact tip is plugged or worn out?

- A) Clean and replace contact tip      B) Damaged cable connections  
C) Adjust the contact tip                D) Low voltage and insufficient heat

**Answer: A) Clean and replace contact tip**

**81.** What Non-destructive test is done using coloured dye and fluorescent liquid to find minute cracks?

- A) Liquid penetration test      B) Magnetic test  
C) Ultrasonic test                D) Radiographic test

**Answer: A) Liquid penetration test**

**82.** What ampere range required for setting 1.2mm filler wire for welding mildsteel in MIG/MAG welding?

- A) 50 - 100 Amps                    B) 100 - 225 Amps  
C) 90 - 150 Amps                  D) 70 - 120 Amps

**Answer: B) 100 - 225 Amps**

**83.** What is the main purpose of 'Normalising' steel?

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

**Answer: A) To produce fine grain of uniform structure**

**84.** How the filler wire is fed in the GMAW welding process?

- A) Manually                              B) Semi automatic  
C) Automatically                        D) No feeding

**Answer: C) Automatically**

**85.** How many types of flux cored wires are used in FCAW?

- A) 2 types                                B) 5 types  
C) 3 types                                D) 4 types

**Answer: A) 2 types**

**86.** Which angle of pre setting is to compensate distortion on horizontal single V butt joint metal thickness 10 mm and root gap 2mm ?

- A) 178 Degree                          B) 173 Degree  
C) 183 Degree                          D) 180 Degree

**Answer: C) 183 Degree**

**87.** What type of hand tool is used to open a gas cylinder in welding practice?

- A) X key                                  B) DE spanner  
C) Spindle key                        D) Allen key

**Answer: C) Spindle key**

**88.** Why the argon and CO<sub>2</sub> mixing gas used in FCAW?

- A) Smooth dip transfer              B) Smooth globular transfer  
C) Smooth spray transfer of melt      D) Smooth pulsed transfer

**Answer: C) Smooth spray transfer of melt**

**89.** What is the angle of inclination of weld torch for flat position in GMAW welding process?

- A) 5 Degree - 10 Degree              B) 15 Degree - 25 Degree  
C) 10 Degree - 15 Degree            D) 25 Degree - 35 Degree

**Answer: C) 10 Degree - 15 Degree**

**90.** Which is the weld position of GMA welding if the filler metal is deposited from the upper side of the joint during welding?

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

**Answer: D) Down hand position**

**91.** Which metal transfer process in GMAW produces strong weld with least spatter?

- A) Spray transfer                      B) Pulsed transfer  
C) Globular transfer                  D) Dip transfer

**Answer: B) Pulsed transfer**

**92.** Which is the only welding position in electro slag welding process?

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

**Answer: B) Vertical**

**93.** What are the positions used in SAW?

- A) Vertical                                B) Overhead  
C) Flat                                      D) Flat and horizontal

**Answer: D) Flat and horizontal**

**94.** Which is adjusted in electron beam welding to eliminate the defect of porosity?

- A) Spot size                              B) Focal position / focus current  
C) Deflection                            D) Weld penetration

**Answer: C) Deflection**

**95.** How many types of metal transfer in GMAW/CO<sub>2</sub> welding process?

- A) Four                                    B) Two  
C) Three                                  D) One

**Answer: A) Four**

**96.** What is the lens shade fitted in a helmet as per the recommendation of welding code for setting of 150 Amps for MMAW?

- A) A # 12                                B) A # 11  
C) A # 13                                D) A # 10

**Answer: B) A # 11**

**97.** Which heat treatment process produces only outer surfaces of job hardened, to some depth?

- A) Case hardening
- B) Hardening
- C) Normalising
- D) Annealing

**Answer: A) Case hardening**

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**98.** What is the trouble shooting to wire wrapping on drive rolls of wire feeder in GMAW?

- A) Replace the drive motor
- B) Adjust drive rolls pressure
- C) Replace drive rolls and guides
- D) Check drive rolls align properly

**Answer: D) Check drive rolls align properly**

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**99.** Which type of welds are often used to assist assembly or to maintain edge alignment during welding?

- A) Root run weld
- B) Level weld
- C) Stringer bevel
- D) Tack weld

**Answer: D) Tack weld**

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**100.** Which welding process granulated flux is fed through hopper to the welding spot?

- A) GTAW
- B) SMAW
- C) SAW
- D) GMAW

**Answer: C) SAW**

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**101.** Which type of apron is suitable to protect from heat and radiation during welding?

- A) Cotton apron
- B) Asbestos apron
- C) Leather apron
- D) Silk apron

**Answer: C) Leather apron**

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**102.** How many types of basic welding positions in GMA welding?

- A) 4 types
- B) 2 types
- C) 5 types
- D) 3 types

**Answer: A) 4 types**

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**103.** What is basic safety environmental condition for the welding area?

- A) Well ventilated
- B) Dust free
- C) Clean area
- D) No congestion

**Answer: A) Well ventilated**

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**104.** What is the operation to clean the cylinder valve before fixing the regulator to the argon cylinder?

- A) Closing
- B) Shutting
- C) Opening
- D) Cracking

**Answer: D) Cracking**

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