

Welder - 1st Semester - Module 1 : Induction Training and Welding Process

Questions: Level 1

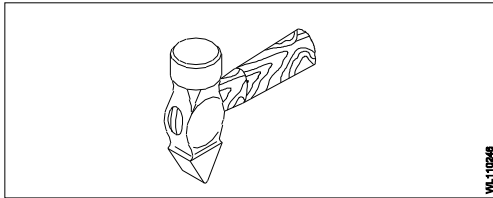
1 Which operation is to remove burrs from a plate after cutting?

- A Brushing
- B Filing
- C Scraping
- D Chiseling

2 Which is used for handling hot jobs?

- A Tongs
- B Shovel
- C Poker
- D Snips

3 Which part of the hammer fits into the handle for its rigidity?



- A Face
- B Pein
- C Cheek
- D Wedge

4 Which is to wear for safety while handling thin sheets?

- A Tongs
- B Clamp
- C Hand gloves
- D Hand screen

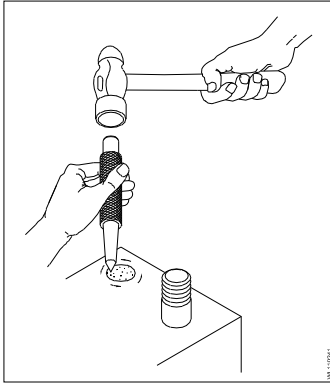
Questions: Level 2

- 1 Which part of hammer is shaped to fit the handle rigidly?
A Big hole
B Eye hole
C Key hole
D Plain hole
-
- 2 What happened if bench vice is over tightened?
A Box nut damaged
B Spindle damaged
C Work bench damaged
D Work pieces damaged
-
- 3 What treatment you should give to a person who suffered from electric shock?
A Given an alcoholic drink
B Given a cold drink
C Made to walk
D Keep warm and comfortable
-
- 4 How much gap is maintained between the grinding wheel and the work rest on a pedestal grinder?
A 4 to 5 mm
B 3 to 4 mm
C 2 to 3 mm
D 1 to 2 mm
-
- 5 Which tool is used to open the cylinder valves?
A Wrench
B Spindle key
C Cutting player
D Adjustable spanner
-
- 6 Which material is used to check the leakage of acetylene regulator connections?
A Salt water
B Plain water
C Soap water
D Chemical water
-
- 7 What action to be taken if a person in still in contact with electric supply?
A Break the contact by hand
B Break the contact by dry wood
C Break the contact by using iron rod
D Break the contact by pushing with leg

- 8** What is done to avoid injury to fingers after hacksawing or chiselling a metal piece?
A Filing
B Cleaning
C Grinding
D De buring
-
- 9** What PPE is used when working on the overhead crane?
A Wear apron
B Wear helmet
C Wear goggles
D Wear leg gaurds
-
- 10** Which is the method to control back fire while welding?
A Close oxygen control valve
B Close acetylene control valve
C First close the oxygen cylinder valve
D First close the acetylene cylinder valve
-
- 11** Which hand tool is used to remove excessive adhering slag after gas cutting?
A Chisel
B Flat file
C Chipping hammer
D Cross cut hammer
-
- 12** What precaution you will follow in gas welding to avoid fire accidents?
A Alert to go away
B Keep fire extinguishers
C Keep sand buckets near
D Keep away the inflammable materials
-
- 13** Which injury is to be covered immediately by clean cloth on affected porpion of the body?
A Cut injury
B Burn injury
C Crush injury
D Broken injury
-
- 14** Which material is used to check the leakage of oxygen regulator connections?
A Salt water
B Soap water
C Plain water
D Chemical water
-
- 15** Why should a welder clothes be free of oil or grease while welding?
A To protect the job
B To reflect the arc rays
C To avoid catching of fire
D To protect the welding machine
-

Questions: Level 3

- 1** What are the main causes of accidents while using a hammer?



- A** Poorly fitted or broken handle
B Carelessness in using a hammer
C Lack of skill in operation
D Improper methods of handling
-
- 2** What are the solutions for the safety in the gas welding?
- A** Learn safety instructions
B Check on hose and gauge for damage
C Periodic checking of the cylinder
D Work area free from flammable material
-
- 3** What is the treatment to a person having eye irritation caused by arc flashes?
- A** Use ear drops
B Use eye drops
C Use nose drops
D Use water drops

Module 1: Induction Training and Welding Process - Key paper

Questions: Level 1

| SL.No | Key |
|-------|-----|
| 1 | B |
| 2 | A |
| 3 | D |
| 4 | C |

Questions: Level 2

| SL.No | Key |
|-------|-----|
| 1 | B |
| 2 | B |
| 3 | D |
| 4 | D |
| 5 | B |
| 6 | C |
| 7 | B |
| 8 | D |
| 9 | B |
| 10 | A |
| 11 | A |
| 12 | D |
| 13 | B |
| 14 | C |
| 15 | C |

Questions: Level 3

| SL.No | Key |
|-------|-----|
| 1 | A |
| 2 | D |
| 3 | B |

Welder - 1st Semester - Module 2 : Welding Techniques

Questions: Level 1

- 1 Which type of transformer used in arc welding?
A Step up
B Step down
C One - to - one
D Capable of increasing supply voltage
-
- 2 Which position is advantageous for easy welding?
A Flat
B Vertical
C Over head
D Horizontal
-
- 3 Which one of the following is used to convert AC to DC supply in a welding machine?
A Rectifier set
B Motor generator set
C Engine generator set
D Welding transformer
-
- 4 What is the metal used to make earth clamp in a welding machine?
A Iron
B Brass
C Aluminium
D Copper alloy
-
- 5 How much current should be set, to weld a 10 mm thick plates, by arc welding?
A 70 Amps
B 80 Amps
C 90 Amps
D 110 Amps
-
- 6 What is the term for the depth of fusion, from the surface of the weld metal plate?
A Leg length
B Fusion zone
C Penetration
D Heat affected zone
-
- 7 What should be the angle for a double bevel butt joint?
A 45⁰
B 35⁰
C 25⁰
D 20⁰

- 8 What is the name of joint if two members welded in the same plane?
A Lap joint
B Tee joint
C Butt joint
D Edge joint
-
- 9 What is the easiest position to weld?
A Flat
B Vertical
C Over head
D Horizontal

Questions: Level 2

- 1 Which type of electrode produces short arc length?
- A Heavy coated electrodes
 - B Light coated electrodes
 - C Medium coated electrodes
 - D Super heavy coated electrodes
-
- 2 Which type of arc length produces deep penetration weld?
- A Long arc length
 - B Short arc length
 - C Medium arc length
 - D Too long arc length
-
- 3 What is the conversion function of a rectifier?
- A AC to AC
 - B DC to DC
 - C AC to DC
 - D DC to AC
-
- 4 Which arc length produces correct fusion?
- A Long arc length
 - B Short arc length
 - C Normal arc length
 - D Too long arc length
-
- 5 Which type of polarity is used in welding non ferrous metals?
- A AC Transformer
 - B Reverse polarity
 - C Straight polarity
 - D DC Motor generator
-

Questions: Level 3

1 Which arc length produces popping sound?

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

2 What arc length should be used to reduce the spatter?

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

Module 2: Welding Techniques - Key paper

Questions: Level 1

| SL.No | Key |
|-------|-----|
| 1 | B |
| 2 | A |
| 3 | A |
| 4 | D |
| 5 | D |
| 6 | C |
| 7 | A |
| 8 | C |
| 9 | A |

Questions: Level 2

| SL.No | Key |
|-------|-----|
| 1 | A |
| 2 | B |
| 3 | C |
| 4 | C |
| 5 | B |

Questions: Level 3

| SL.No | Key |
|-------|-----|
| 1 | B |
| 2 | C |

Welder - 1st Semester - Module 3: Weldability of Steel

Questions: Level 1

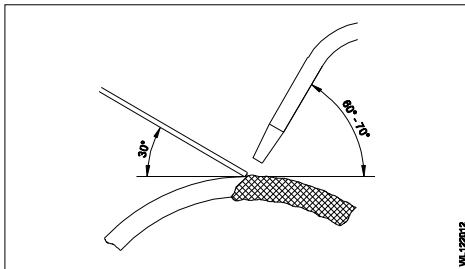
1 What is the current range required for 3.15mm dia MS electrode in arc welding?

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

2 What is the name of last bit of an discarded electrode?

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

3 How many groups of mild steel pipes are there?



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

4 How a pipe is specified?

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

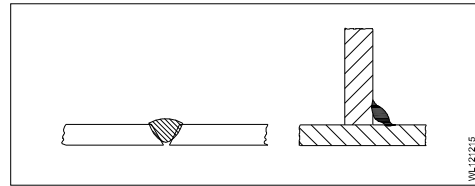
5 What should be the bevel angle for edge preparation of 6mm thick pipe welding?

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

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

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

7 What is the defect in the weld joint shown in figure?



- A Overlap
- B Porosity
- C Reinforcement
- D Lack of penetration

8 Which metal in welding process is subjected to "Weld decay" defect?

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

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

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

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

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

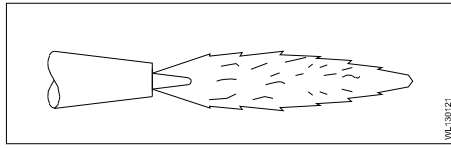
11 Which accessory is used to protect the eyes during gas welding?

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

12 What is the composition of acetylene gas?

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

13 What is the name of the flame shown in figure?



- A Neutral flame
- B Oxidising flame
- C Carburising flame
- D Oxy-Acetylene flame

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

- A 3.15 mm ϕ
- B 4.0 mm ϕ
- C 5.0 mm ϕ
- D 6.3 mm ϕ

15 How many segments are to be selected for welding 50 mm ϕ pipe?

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

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

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

17 How many equal divisions should be made while developing a "T" pipe joint?

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

18 Which metal in welding process is subjected to "Weld decay" defect?

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

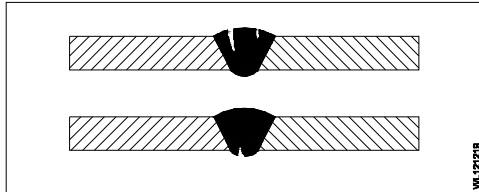
19 What is the name of small metal particles which are thrown out of the arc during welding?

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

Questions level 2

- 1 What is the defect of metal flowing into the surface of base metal without fusing it?
- A Over lap
B Under cut
C Lack of fusion
D Lack of penetration

- 2 What is the type of welding defect shown in given figure?



- A Crack
B Blow hole
C Burn through
D Unfilled crater
-
- 3 Which one of the defect is caused by low current in arc welding?
- A Poracity
B Under cut
C Lack of fusion
D Excessive penetration
-
- 4 What is the cause of hair line separation in the bead in arc welding?
- A Fast cooling
B Slow cooling
C Long arc length
D Wrong selection of electrode
-
- 5 What is the name of the steel material which are not weldable?
- A High carbon steel
B Medium carbon steel
C Austenitic stainless steel
D Ferrite & martensitic stainless steel
-
- 6 Which is used to cut thin pipes of smaller sizes?
- A Chisel
B Hack sawing
C Pipe cutter
D Lathe parting tool

- 7 What is the base for selecting the nozzle size for gas welding of a pipe?

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

-
- 8 Which type of filler rod shall contain higher percentage of iron?

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

-
- 9 What is the process of heating steel to specific temperature and cooling suddenly?

- A Annealing
B Hardening
C Tempering
D Quenching

-
- 10 What is the main purpose of 'Normalising' steel?

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

-
- 11 What is the purpose of setting root gap?

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

-
- 12 Which of the following metals have high thermal conductivity?

- A Brass
B Bronze
C Copper
D Aluminium

-
- 13 What is the process of hot weld joint rapidly hammered to relieve internal stresses?

- A Peening
B Annealing
C Heat treatment
D Straightening

-
- 14 Which type of cast iron possess higher hardness?

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

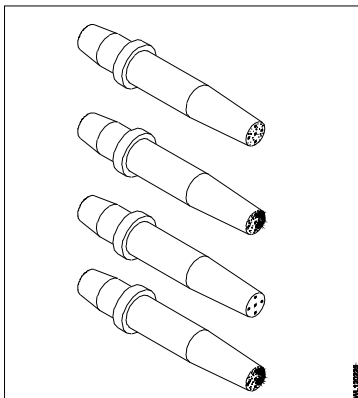
- 15 Which type of cast iron is soft?
- A Grey cast iron
 - B White cast iron
 - C Nodular cast iron
 - D Malleable cast iron

- 16 Which size of filler rod should be used to weld 2mm thick MS sheet?
- A 1.6 mm
 - B 2.0 mm
 - C 2.5 mm
 - D 3.15 mm

- 17 What is the main function of the flux coating in electrodes?
- A To prevent rusting
 - B To stabilize the arc
 - C To control arc temperature
 - D To increase welding current

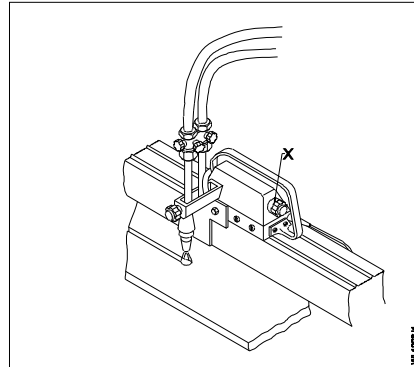
- 18 What is the purpose of oxygen lever in gas cutting?
- A Pre heat the base metal
 - B Push the molten metal
 - C Remove the excess metal
 - D Release excess oxygen and to push the molten metal

- 19 Which nozzle shown in figure represents good condition and selected for gas cutting?



- A Nozzle A
- B Nozzle B
- C Nozzle C
- D Nozzle D

- 20 What is the name of the part 'x' shown of a portable cutting machine?



- A Speed control
 - B Pre-heat control
 - C Vertical control
 - D Horizontal control
- 21 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
- 22 What are the defects in generated acetylene gas?
- A Oxygen, hydrogen & carbon
 - B Carbon monoxide unburit ash
 - C Hydrogen, dust particles, ash
 - D Hydrogen, lime dust, ammonia & water vapour
- 23 What is the range of pressure gauge used in an oxygen cylinder used in gas welding?
- A 120 to 150 Kg/cm²
 - B 110 to 150 Kg/cm²
 - C 100 to 150 Kg/cm²
 - D 90 to 150 Kg/cm²
- 24 What should be the angle of filler rod, by rightward welding?
- A 30° - 40°
 - B 40° - 50°
 - C 50° - 60°
 - D 60° - 70°
- 25 What thickness of plate, gas welding by forehand technique can be used without edge preparation?
- A Up to 2.5 mm
 - B Up to 3.15 mm
 - C Up to 4 mm
 - D Up to 5 mm

26 What is the purpose of copper coating in MS filler rod?

- A** Easy to melt and deposit
- B** To speed up fusion of weld
- C** To increase filler rod dia
- D** To prevent rusting of filler rod

27 What flux is used in welding brass?

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

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

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

29 Which filler rod to be used for gas welding aluminium?

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

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

- A** 200°C - 400°C
- B** 250°C - 400°C
- C** 300°C - 400°C
- D** 350°C - 400°C

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

- A** Groove angle
- B** Weldig position
- C** Diameter of pipe
- D** Pipe wall thickness

32 What is the welding position asper ASME for a pipe joint held vertically, welding in a horizontal line?

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

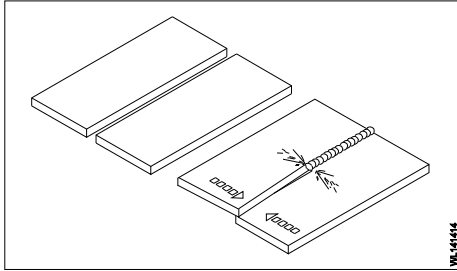
33 What procedure is followed in welding pipe in 5 G position?

- A** Rotate pipe and weld vertically
 - B** Pipe not rotated weld vertically
 - C** Pipe not rotated and pipe axis 45°
 - D** Pipe welded 12'o clock to 6'o clock either by uphill or downhill method
-

Questions Level 3

- 1 Why deposited bead is not in uniform size?
A Incorrect flame setting
B Wrong angle of blow pipe
C Wrong angle of filler rod
D Variation in speed of travel and angle

- 2 What is the type of distortion shown?



- A Wide distortion
B Angular distortion
C Transverse distortion
D Longitudinal distortion
- 3 Which element is present in contact electrodes in large proportion?
A Carbon
B Silicon
C Manganese
D Iron powder.
- 4 Which size of filler rod should be used to weld 2.5mm thick plates, using nozzle 5 by leftward technique?
A 1.60 mm
B 2.00 mm
C 2.50 mm
D 3.15 mm
- 5 Which process causes the increase in the strength of part after fabrication?
A Hardening
B Tempering
C Quenching
D Normalising
- 6 How the repairs of cracks in cast iron component carried out?
A By using clamps during welding process
B Similar to arc welding mild steel plate
C Local preheating, leftward welding technique flame heating each layer
D Cracks repaired using appropriate electrode

- 7 Which heat treatment process causes the reduction of brittleness in the steel?
A By annealing
B By hardening
C By tempering
D By normalising

- 8 What is the cause of porosity in arc welding?
A Damp electrodes
B Carbon electrodes
C Over size electrodes
D Low hydrogen electrodes

- 9 What is the welding defect in base metal gets melted and a groove formed along the toe of the weld?
A Undercut
B Blow holes
C Reinforcement
D Lack of penetration

- 10 What is the name of the steel material that is not weldable?
A High carbon steel
B Medium carbon steel
C Austenitic stainless steel
D Ferrite & martensitic stainless steel
-

Module 3: Weldability of Steel - Key paper

Questions: Level 1

| SL.No | Key |
|-------|-----|
| 1 | D |
| 2 | C |
| 3 | A |
| 4 | D |
| 5 | A |
| 6 | A |
| 7 | D |
| 8 | D |
| 9 | D |
| 10 | D |
| 11 | B |
| 12 | D |
| 13 | A |
| 14 | C |
| 15 | B |
| 16 | A |
| 17 | D |
| 18 | D |
| 19 | B |

Questions: Level 2

| SL.No | Key |
|-------|-----|
| 1 | A |
| 2 | A |
| 3 | C |
| 4 | A |
| 5 | C |
| 6 | C |
| 7 | D |
| 8 | A |
| 9 | D |
| 10 | D |
| 11 | C |
| 12 | C |
| 13 | A |
| 14 | B |
| 15 | A |
| 16 | A |
| 17 | B |
| 18 | B |
| 19 | C |
| 20 | A |
| 21 | B |
| 22 | D |
| 23 | A |
| 24 | A |
| 25 | B |
| 26 | D |
| 27 | B |
| 28 | D |
| 29 | D |
| 30 | B |
| 31 | D |
| 32 | B |
| 33 | D |

Questions: Level 3

| SL.No | Key |
|-------|-----|
| 1 | D |
| 2 | C |
| 3 | D |
| 4 | B |
| 5 | A |
| 6 | C |
| 7 | C |
| 8 | A |
| 9 | A |
| 10 | C |