

**PAPER-I
WELDER
(THEORY)
SEMESTER-II**

TIME: 3 Hrs.**MARKS: 150****Note:- Attempt all the questions.****All questions carry equal marks.****This paper carries negative marking 25% marks will be deducted for each wrong answer.****Choose the correct answer:**

1. Submerged arc welding is characterized by _____
a) High welding current b) Smooth beads
c) Deep penetration d) All of these
2. Which of the following statements is NOT true about MIG welding?
a) Arc is not visible to the operator b) High welding speed
c) No slag to be removed d) Sound welds
3. _____ refers to how filler metal is deposited to the base metal to form the weld bead.
a) Metal transit b) Metal transport
c) Metal transfer d) Metal transition
4. What is the suitable shielding gas for MIG welding of aluminium?
a) Helium b) Argon
c) No preference d) Mixture of helium and argon
5. Which shielding gas is suitable for welding of mild steel by gas metal arc welding?
a) Helium b) Argon
c) Carbon dioxide d) None of these
6. Spot welding process basically depends on _____
a) Generation of heat and application of forging pressure
b) Generation of heat
c) Ohmic resistance
d) Application of forging pressure
7. If weld metal solidifies before the gas entrapped in it can escape, the defect caused will be-
a) Lack of fusion b) Undercut
c) Lack of penetration d) Porosity
8. Flux in the flux-cored electrodes contain deoxidizers. Their function is to react with _____ present in the weld area and form harmless compound.
a) Inert gas b) Hydrogen
c) Oxygen d) Nitrogen

Contd....2/-

9. There are four modes of metal transfer in GMAW. Which one is considered least desirable?
a) Globular
b) Short-circuiting
c) Spray
d) Pulsed-spray
10. Electric resistance seam welding uses _____ electrodes.
a) Pointed
b) Disc
c) Domed
d) Flat
11. In which of the following processes, heat is created by blacksmith fire?
a) Forge welding
b) Spot welding
c) Projection welding
d) Seam welding
12. Is it necessary to apply pressure in submerged arc welding?
a) Yes
b) No
c) Sometimes
d) None of these
13. Which one of the following welding process requires the use of flux?
a) TIG
b) MIG
c) SAW
d) MAG
14. What is an "inert gas" as used in MIG welding?
a) A gas that cools the weld zone to prevent cracking
b) A gas that prevents porosity by burning a hot neutral flame
c) A gas that does not chemically react with other elements to help produce a quality weld
d) A gas that heats up the weld zone to create better quality weld
15. The flux used in electro slag welding has _____
a) Low electrical resistance
b) Medium electrical resistance
c) High electrical resistance
d) No electrical resistance
16. Which one of the following is NOT the characteristic of electro slag welding?
a) It results in coarse grain structure of the weld
b) It results in low toughness of the weld
c) It is done in vertical position
d) Its welding speed is slow
17. Atomic hydrogen welding will have a temperature of _____
a) 2400°C
b) 3200°C
c) 6100°C
d) 1600°C
18. Which statement applies to thermit welding?
a) It is hazardous due to very high temperature
b) Once this process is initiated it can not be smoothened
c) This process can be considered to be a portable foundry
d) All of these

Contd....3/-

19. When two wires of different metals are twisted together and heat applied to the junction, an e.m.f. is produced. This effect is used in a thermocouple to measure _____
a) e.m.f
b) Temperature
c) Expansion
d) Heat
20. Increase in carbon content of the metal will _____
a) Increase hardness and strength
b) Improve ductility and toughness
c) Reduce weldability
d) Both (a) & (c)
21. What does the term 'ripple' refers to as regards welded joint?
a) Shape of weld bead
b) Depression in base metal
c) Depth of fusion in metal
d) Distance from electrode to metal
22. Heating of a joint immediately after welding is called _____
a) Preheating
b) Post-heating
c) Late heating
d) Delayed heating
23. The original metal being joined by welding is called _____
a) Raw metal
b) Bead metal
c) Base metal
d) Finished metal
24. What are some short term symptoms of 'Arc Eye' or 'Welder's Flash'?
a) Dry eyeballs
b) Extreme eye pain, headache, nausea
c) Infection, conjunctivitis, excessive winking
d) Blindness
25. A solid state welding process using a non-consumable, cylindrical tool is called _____
a) Resistance welding
b) Friction stir welding
c) Carbon arc welding
d) Electroslag welding
26. Cracking in weld metal can occur _____
a) During welding
b) After the weld metal has cooled to room temperature
c) During the weld heat treatment
d) All of these
27. The need for pre and post heating carbon steels may be indicated by _____
a) Ferrite number
b) Carbon equivalent
c) Matensite content
d) Austenite content
28. The test method used to test strength of spot welded joints is _____
a) Shear test
b) Tensile test
c) Bend test
d) Radiography
29. In the welding process, removal of weld metal and base metal from the opposite side of a welded joint to ensure complete penetration upon welding from that side is called _____
a) De-welding
b) Beveling
c) Back gouging
d) Joint preparation

Contd....4/-

41. The welding processes submerged arc welding and electroslag welding are similar in that _____
a) Both are arc welding processes
b) Both use shielding gases
c) Both use a granular flux, which becomes molten
d) All of these
42. In the IG position for welding pipes, the pipe must be _____
a) Rotated
b) Angled
c) Horizontal
d) Vertical
43. The circle used in a welding symbol means that welding is _____
a) To ensure that subsequent deposits are sound
b) To be all around the joint
c) To remove any excess flux
d) To relieve stresses in the first place
44. How is the thickness of thin metal sheets measured?
a) By micrometer
b) By gauge
c) By calliper
d) All of these
45. The graphic description of any type of weld is called as _____
a) Tail
b) Reference line
c) Weld symbol
d) Arrow
46. A root bend test is used to test the amount of weld _____
a) Ductility
b) Elongation
c) Hardness
d) Penetration
47. When testing parts with magnetic particle test, it is best to magnetize the part _____
a) In two directions at right angles to each other
b) With AC whenever possible
c) With DC whenever possible
d) With an amperage of a least 100 amperes
48. Friction welding is suitable to weld _____
a) Rectangular jobs
b) Square jobs
c) Circular jobs
d) Irregular jobs
49. If the number of passes to make a welded joint is increased, how will it affect distortion?
a) It will increase distortion
b) It will decrease distortion
c) It will have no effect on distortion
d) It will have very little effect on distortion
50. One of the reasons for avoiding the use of long arc during welding is that _____
a) It increases the open circuit voltage
b) It will give lack of fusion of base metal
c) The joint will develop cracks during welding
d) It consumes more electrodes
