



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 answer. | % marks will be deducted for each wrong |
| Choos | e the correct answer: | |
| 1. | Submerged arc welding is characterized by a) High welding current c) Deep penetration | b) Smooth beads d) All of these |
| 2. | Which of the following statements is NOT a) Arc is not visible to the operator c) No slag to be removed | true about MIG welding? b) High welding speed d) Sound welds |
| 3. | refers to how filler metal is dep a) Metal transit c) Metal transfer | b) Metal transport d) Metal transition |
| 4. | What is the suitable shielding gas for MIG a) Helium c) No preference | welding of aluminium? b) Argon d) Mixture of helium and argon |
| 5. | Which shielding gas is suitable for welding a) Helium c) Carbon dioxide | of mild steel by gas metal arc welding? b) Argon 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 fusionc) Lack of penetration | b) Undercut d) Porosity |
| 8. | Flux in the flux-cored electrodes contain present in the weld area and for a) Inert gas c) Oxygen | b) Hydrogen d) Nitrogen |
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| 9. | There are four modes of metal transfer desirable? | in GMAW. Which one is considered least | |
| | a) Globularc) Spray | b) Shor-circuiting d) Pulsed-spray | |
| 10. | Electric resistance seam welding usesa) 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 | |
| 10 | | | |
| 12. | Is it necessary to apply pressure in submerg | | |
| | a) Yes | b) No | |
| | c) Sometimes | d) None of these | |
| 13. | Which one of the following welding process | a manifest the way of flows? | |
| 15. | Which one of the following welding proces | | |
| | a) TIG | b) MIG | |
| | c) SAW | d) MAG | |
| 14. | What is an "inert gas" as used in MIG weld a) A gas that cools the weld zone to preven b) A gas that prevents porosity by burning a c) A gas that does not chemically react with weld d) A gas that heats up the weld zone to crea | nt cracking a hot neutral flame h other elements to help produce a quality | |
| 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 cha | racteristic of electro slag welding? | |
| | a) It results in coarse grain structure of the | | |
| | b) It results in low toughness of the weld | | |
| , | c) It is done in vertical position | | |
| | d) Its welding speed is slow | | ٠. |
| | d) its welding speed is slow | | |
| 17. | Atomic hydrogen welding will have a temperature | erature of | |
| | a) 2400° C | b) 3200 ⁰ C | |
| | c) 6100° C | d) 1600° C | |
| | | -, | |
| 18. | Which statement applies to thermit welding | ? | |
| | a) It is hazardous due to very high temperation | | |
| | b) Once this process is initiated it con not be | | |
| | | | |
| | c) This process can be considered to be a p | ortable foundry | |
| | d) All of these | | |

| 19. | an e.m.f. is produced. This effect is used in | . - |
|-----|--|---|
| | a) e.m.f | b) Temperature |
| | c) Expansion | d) Heat |
| | T | |
| 20. | Increase in carbon content of the metal wil | |
| | a) Increase hardness and strength | b) Improve ductility and toughness |
| | c) Reduce weldability | d) Both (a) & (c) |
| 0.1 | | 1 11 11 10 |
| 21. | What does the term 'ripple' refers to as reg | _ |
| | 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 often welding | and a called |
| 22. | Heating of a joint immediately after weldir | |
| | a) Preheating | b) Post-heating |
| | c) Late heating | d) Delayed heating |
| 22 | The entries of executing the state of the st | the settle I |
| 23. | The original metal being joined by welding | |
| | a) Raw metal | b) Bead metal |
| | c) Base metal | d) Finished metal |
| 0.4 | XXII | |
| 24. | What are some short term symptoms of 'A | rc Eye' or 'Welder's Flash? |
| | a) Dry eyeballs | |
| | b) Extreme eye pain, headache, nausea | |
| | c) Infection, conjunctivitis, excessive winl | king |
| | d) Blindness | |
| 0.5 | 111 | |
| 25. | A solid state welding process using a non- | · |
| | a) Resistance welding | b) Friction stir welding |
| | c) Carbon arc welding | d) Electroslag welding |
| 26 | Creating in wold matal on a con- | |
| 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 me and next heating and and | tools may be indicated by |
| 21. | The need for pre and post heating carbon s | |
| | a) Ferrite number | b) Carbon equivalent |
| | c) Matensite content | d) Austenite content |
| 20 | | |
| 28. | The test method used to test strength of spo | |
| | a) Shear test | b) Tensile test |
| | c) Bend test | d) Radiography |
| 20 | To the small day servery sees over a final day | and and have stard from the manager of the A. |
| 29. | | etal and base metal from the opposite side of a |
| | | n upon welding from that side is called |
| | a) De-welding | b) Bevelling |
| | c) Back gouging | d) Joint preparation |
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| | | in the state of the second of | |
|-----|--|--|---|
| 30. | In a welded joint, the minimum distance | · | |
| | a) Hypotenusec) Effective throat | b) Leg d) Length of weld | - |
| 31. | The portion of the base metal that has not been melted but whose microstructure has been | | |
| | altered by heat of welding is called | | |
| | a) Fusion zone | b) Heat affected zone | |
| | c) Dead zone | d) Twilight zone | |
| 32. | In a bend test, when the face of the specient the test is called a | men is in tension and the root is in compression, | |
| - | a) Root bend test | b) Side bend test | |
| | c) Face bend test | d) Longitudinal bend test | |
| 33. | Slag inclusion may be present in | | |
| , | a) Manual metal arc welds | b) Metal inert gas welds | |
| | c) Metal active gas welds | d) All of these | |
| . " | | in the second se | |
| 34. | The principal purpose of a welder qualifi | cation test is to | |
| | a) Test the skill of the welder | | |
| | b) Assess the weldability of the materials | | |
| | c) Decide which NDT method to use | | |
| | d) Give the welder practice before doing | production welding | |
| 35. | Visual inspection of a fabricated item of lactivities | high quality application should cover inspection | |
| | a) Before, during and after welding | b) Before welding only | |
| | c) After welding only | d) During and after welding only | |
| | | , a see of the second of the s | |
| 36. | Which mechanical test can be used to n parent metal? | neasure the toughness of weld metal, HAZ and | |
| | a) Macro examination | b) Nick break test | |
| | c) Hardness test | d) Charpy impact test | |
| 37. | A unit of power is expressed in | | |
| | a) Volt | b) Ampere | |
| | c) Watt | d) Ohm | |
| | | | |
| 38. | Which one of the following is a non-destr | uctive test? | |
| | a) Impact test | b) Tensile test | |
| | c) Nick break test | d) Magnetic particle test | |
| 39. | The advantage of electron beam welding | is | |
| | a) Single pass welding of thick joints | b) Low distortion | |
| | c) Narrow heat affected zone | d) All of these | |
| | | .,, | |
| 40. | Using oil or grease on an oxygen regulato | | |
| | a) Cause grease to burn | b) Cause the regulator to burn | |
| | c) Cause the cylinder to explode | d) All of these | |
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| 41. | that | velding and electroslag welding are similar in |
|-----|--|---|
| | a) Both are arc welding processes | |
| | b) Both use shielding gases | |
| | c) Both use a granular flux, which become | es molten |
| | d) All of these | |
| 42. | In the IG position for welding pipes, the pi | na must ha |
| 12. | a) Rotated | b) Angled |
| | c) Horizontal | d) Vertical |
| | | d) Voltical |
| 43. | The circle used in a welding symbol means | s 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 n | neasured? |
| | a) By micrometer | b) By gauge |
| | c) By calliper | d) All of these |
| 4.5 | | |
| 45. | The graphic description of any type of well | |
| | a) Tail | b) Reference line |
| | c) Weld symbol | d) Arrow |
| 46. | A root bend test is used to test the amount | of wold |
| 10. | a) Ductility | b) Elongation |
| | c) Hardness | d) Penetration |
| | -, | d) I chettation |
| 17: | When testing parts with magnetic particle t | est, 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 ampered | es |
| | | |
| 18. | Friction welding is suitable to weld | |
| | a) Rectangular jobs | b) Square jobs |
| | c) Circular jobs | d) Irregular jobs |
| 19. | If the number of passes to make a well-1: | |
| ٠, | a) It will increase distortion | oint is increased, how will it affect distortion? |
| | c) It will have no effect on distortion | b) It will be ease distortion |
| | c) it will have no effect off distortion | d) It will have very little effect on distortion |
| 50. | One of the reasons for avoiding the use of l | ong are during welding is that |
| | a) It increases the open circuit voltage | ong are during welding is that |
| | b) It will give lack of fusion of base metal | |
| | c) The joint will develop cracks during we | lding |
| | d) It consumes more electrodes | 8 |
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