

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

23-0006-AB

TEST BOOKLET
PAPER-II
WELDER

Time Allowed: 1 hr

Maximum Marks: 50

INSTRUCTIONS TO CANDIDATES

Read the instructions carefully before answering the questions: -

1. This Test Booklet consists of 08 (eight) pages and has 50 (fifty) questions.
2. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET *DOES NOT* HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
3. Please note that it is the candidate's responsibility to fill in the Roll Number and other required details carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the OMR Answer Sheet liable for rejection.
4. Do not write anything else on the OMR Answer Sheet except the required information. Before you proceed to mark in the OMR Answer Sheet, please ensure that you have filled in the required particulars as per given instructions.
5. Use only Black Ball Point Pen to fill the OMR Answer Sheet.
6. Each question comprises of 04 (four) responses (answers). You are required to select the response which you want to mark on the OMR Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.
7. After you have completed filling in all your responses on the OMR Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the OMR Answer Sheet*. You are permitted to take the Test Booklet with you.
8. Penalty for wrong answers in case of Multiple Choice based Questions:
THERE WIL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE.
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to the question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to the question.
 - (iii) If a question is left blank. i.e., no answer is given by the candidate; there will be no penalty for that question.

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WELDER

Choose the correct answer for the following questions:

1. In welding face shield is used to protect our eyes from
 - (a) Spark
 - (b) Ultraviolet rays
 - (c) Infra-red rays
 - (d) b and c

2. In electric arc welding which type of transformer is used?
 - (a) Step up
 - (b) Step down
 - (c) No transformer is used
 - (d) a and b

3. A non consumable electrode is used in
 - (a) Laser welding
 - (b) MIG welding
 - (c) Plasma arc welding
 - (d) None of these

4. Grey cast iron is welded by
 - (a) MIG welding
 - (b) TIG welding
 - (c) Arc welding
 - (d) None of these

5. Projection welding is a
 - (a) Arc welding
 - (b) Gas welding
 - (c) Resistance welding
 - (d) Friction welding

6. Welding process in which two pieces to be welded are overlapped and placed between two electrode is known as
 - (a) Projection welding
 - (b) spot welding
 - (c) seam welding
 - (d) butt welding

7. Which is not a surface cleaning technique?
 - (a) Mechanical cleaning
 - (b) abrasive cleaning
 - (c) electrical cleaning
 - (d) thermal cleaning

8. Shape of arc is
 - (a) Round
 - (b) bell
 - (c) pointed
 - (d) no shape of arc

9. For welding M.S, the following arc welding is most suitable
- (a) DC straight polarity
 - (b) DC reverse polarity
 - (c) AC reverse polarity
 - (d) AC straight polarity
10. In gas welding the temperature of carburizing flame is
- (a) 3200°C
 - (b) 3300°C
 - (c) 2900°C
 - (d) 2500°C
11. Aluminium is quite difficult to weld because
- (a) Low melting point
 - (b) Light material
 - (c) Forms a layer of aluminum oxide
 - (d) Does not form bond so easily
12. In a straight polarity welding
- (a) Job is positive and holder is earthed
 - (b) Electrode holder is connected to the negative and job to positive
 - (c) Electrode holder is connected to the positive and job to negative
 - (d) Holder is positive and job is earthed
13. In welding position 3G means
- (a) Flat position
 - (b) Horizontal position
 - (c) Vertical position
 - (d) No meaning
14. Magnetic arc blow is
- (a) An arc welding
 - (b) Occurs when welding near equator
 - (c) Of importance of occurrence of spatter
 - (d) None of these
15. The melting point of brazing filler should be above
- (a) 550°C
 - (b) 400°C
 - (c) 600°C
 - (d) 900°C
16. Carburizing flame is used to weld
- (a) Steel
 - (b) cu+brass
 - (c) CI
 - (d) Al,SS,Zn ,Ni,Monel metal etc
17. Which one is not a welding defect?
- (a) Pin hole
 - (b) Distortion
 - (c) Rat tail
 - (d) Spatter

18. oxy-acetylene welding is suitable to weld
- (a) 5 mm
 - (b) 10 mm
 - (c) 15 mm
 - (d) 20 mm
19. The distance from the center of arc to the tip of electrode is called what?
- (a) Arc distance
 - (b) Arc creator
 - (c) Arc depth
 - (d) Arc length
20. What is the capacity of a light manual welding machine?
- (a) 100-200A
 - (b) 300-400A
 - (c) 500-600A
 - (d) None of these
21. Which material is not used for making non-consumable electrode?
- (a) Carbon
 - (b) Sodium
 - (c) Graphite
 - (d) Tungsten
22. Heat for soldering process is supplied by
- (a) Electric resistance technique
 - (b) Soldering iron
 - (c) Induction furnace
 - (d) Any one of these
23. The ration of iron oxide and aluminium in thermit is
- (a) 1:1
 - (b) 1:3
 - (c) 3:1
 - (d) 2:1
24. Pinch effect in welding occurs due to
- (a) Surface tension
 - (b) Expansion of gases in the arc
 - (c) Shielding gases
 - (d) None of these
25. Within the heat affected zone (HAZ) in a fusion welding process, the work material undergoes
- (a) Microstructure changes but does not melt
 - (b) Neither melting nor microstructure changes
 - (c) Both melting and microstructure changes after solidification
 - (d) Melting and retains the original microstructure after solidification
26. In submerged arc welding, the arc is stuck between
- (a) Non-consumable electrode and work piece
 - (b) Consumable electrode and work piece
 - (c) Non-consumable coated electrode and work piece
 - (d) Consumable coated electrode and work piece

27. In a welding process, the welding parameters used are: welding current=300 A, arc voltage=28 V and welding speed=4.5 mm/s. What would be welding power?
- (a) 8.4 kW
 - (b) 84.0 kW
 - (c) 4.8 kW
 - (d) 480. kW
28. In resistance spot-welding operation is performed on two 1.25 mm thick sheet using 12000 A for a 0.15 sec. if electrode diameter is 6 mm at contact surface and resistance assumed to be 0.0001 ohm then what would be the heat generated during the process?
- (a) 21.60 Joules
 - (b) 2160 Joules
 - (c) 216.0 Joules
 - (d) 22.60 Joules
29. What is the NDT method using sound as a source?
- (a) Magnetic particle test
 - (b) Visual inspection
 - (c) Pressure test
 - (d) Stethoscope test
30. What is the test if the weld specimen is placed in between the x-ray unit and film?
- (a) Magnetic particle test
 - (b) Liquid penetration test
 - (c) Ultra sound test
 - (d) None of these
31. Slag inclusion are frequently trapped in fusion welds due to
- (a) The weld metal cracking
 - (b) The stresses set up in the weld
 - (c) Bead contour and the difficulty in melting the slag in subsequent runs
 - (d) Gas solubility in liquid and solid weld metals
32. Slag inclusion type defect never occurs in
- (a) MIG welding
 - (b) TIG welding
 - (c) SAW
 - (d) SMA welding
33. _____ is not a non-destructive testing method
- (a) Dye-penetration test
 - (b) Leak test
 - (c) Visual testing
 - (d) Hardness testing
34. Pre-heating a carbon steel, shielded metal arc welding is carried out to minimize the risk of
- (a) Worm hole porosity
 - (b) Parent metal cracking
 - (c) Lack of penetration
 - (d) Scattered porosity

35. In which of the following aspects is DC welding is better than AC welding?
- (a) Efficiency
 - (b) Power consumption
 - (c) Arc stability
 - (d) Cost
36. Purposes of root gap providing
- (a) To avoid cracking
 - (b) To avoid blow holes
 - (c) To avoid distortion
 - (d) To avoid porosity
37. In arc welding current range is usually
- (a) 50-100A
 - (b) 10-15A
 - (c) 100-350A
 - (d) None of these
38. Which of the following injury is common in gas welding operation?
- (a) Electric shock
 - (b) Burns due to flame
 - (c) Injury due to cut injury
 - (d) Bleeding due to cut injury
39. Which type of material is used for gas welding cylinder?
- (a) Solid drawn steel
 - (b) Forged steel
 - (c) Nickel steel
 - (d) Stainless steel
40. Soldering iron is made of wedge shape in order to
- (a) Facilitate molecular attraction
 - (b) Retain solder
 - (c) Retain heat
 - (d) None of these
41. Under cuts in weldments are caused due to
- (a) Low welding current
 - (b) Excessive welding current
 - (c) Wrong selection of electrode
 - (d) None of these
42. Scales and oxide removed from stainless steel by
- (a) Heating up to 950-1100°C and quenched in water
 - (b) Peening
 - (c) Cooling in oil
 - (d) Cooling in sand
43. Which type of defect will be produced if the surface is not cleaned before welding?
- (a) Small cracks in weld bead
 - (b) Lack of fusion
 - (c) Over lap
 - (d) Surface porosity

44. Which heat treatment process causes the reduction of brittleness in the steel?
- (a) By normalizing
 - (b) By annealing
 - (c) By tempering
 - (d) By hardening
45. What is the angle of pipe axis with the base for making an elbow joint?
- (a) 45°
 - (b) 50°
 - (c) 80°
 - (d) 90°
46. Which are the common alloying elements of brass?
- (a) Cu+Sn
 - (b) Bi+Sn
 - (c) Sb+Sn
 - (d) Cu+Zn
47. What size of electrode is used to weld 5 mm wall thickness pipe?
- (a) Ø 1.5 mm
 - (b) Ø 2.5 mm
 - (c) Ø 3.15 mm
 - (d) Ø 3.5 mm
48. What is the welding position as per ASME for a pipe joint held vertically, welding in a horizontal line?
- (a) 1G
 - (b) 2G
 - (c) 5G
 - (d) 6G
49. What is the temperature in the weld area during plasma arc welding?
- (a) 5000-10000°C
 - (b) 10,000-20,000°C
 - (c) 20,000-30,000°C
 - (d) 30,000-35,000°C
50. Which process is used to cut stainless steel?
- (a) Plasma cutting
 - (b) Micro plasma cutting
 - (c) Plasma arc cutting
 - (d) Key hole plasma
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Space for rough work