

**Skill Development and Entrepreneurship Department**  
**Directorate of Vocational Education and Training**  
**Directorate of Skill Development, Employment and Entrepreneurship**  
**Question Paper Group Name: MECHANICAL-11**  
**Question Paper Post Names: Craft Instructor – Welder**

Duration: 60 Minutes

Total Questions: 40

**INSTRUCTIONS**

1. This Question Paper Booklet contents 40 mandatory questions. Candidate should check the Question Paper Booklet and ensure that it contents all pages and questions before starting to answer. If candidate finds any problem pertaining to printing/ binding/ incomplete pages etc, candidate should immediately get the Question Paper replaced from the Invigilator.
2. Candidate has to write his/ her seat number in this block. 

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3. The Question Booklet Number as printed above should be mentioned at the appropriate place on the OMR Answer Sheet.
4. All the Questions are provided with 4 options as 1, 2, 3 and 4. Candidate should select the most correct Option and mention the Option Number on the OMR Answer Sheet in front of the respective Question Number by **fully shading the Option Number with BLACK INK BALL POINT PEN Only**.
5. All Questions carry equal marks i.e. 1 Question has a weightage of 1 marks. Candidate should mind the available time for the examination and solve the questions accordingly.
6. The option shaded once on the OMR Answer Sheet should not be roughed or in any other way changed. Thus candidate should take utmost care while marking their options on OMR Answer Sheet. Such changes if any or any attempt to rough/ change options shall not be checked by the authorities.
7. Marks shall be awarded to the correct answers only during the evaluation of the OMR Answer Sheet. No marks shall be deducted for registering wrong answers (shading wrong option) or not attempting questions. Thus there is **NO NEGATIVE MARKING SYSTEM**.
8. All the rough work has to be done on the sheet provided for Rough Work in the Question Booklet only. Writing anything on the Question Paper Booklet, OMR Answer Sheet or any other Paper Sheet shall be treated as an unfair means and entitle for action under "Prohibition of Unfair Practices during examination Ordinance – 1982".
9. Method of Shading the Correct Option on the OMR Answer Sheet:

Q.No. 25. How many Centimeters make 1 Meter?

- |          |           |
|----------|-----------|
| (1) 10   | (2) 100   |
| (3) 1000 | (4) 10000 |

The Correct Option for this Question is (1) and hence the (2) option on the OMR Answer Sheet in front of Question Number 25 has to be shaded as following



Correct Method of Shading

Wrong Method of Shading

**USE ONLY BLACK INK BALL POINT PEN FOR SHADING****IMPORTANT**

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**THIS QUESTION PAPER BOOKLET AND PART – 1 OF OMR ANSWER SHEET HAVE TO BE SUBMITTED TO THE INVIGILATOR AFTER THE EXAMINATION.**

1. Out of the following which is not a Non-destructive test?

- |                       |                              |
|-----------------------|------------------------------|
| 1. Visual examination | 2. Radiographic              |
| 3. Nick- break test   | 4. Supersonic or ultrasonic. |

2. \_\_\_\_\_ Defect can be found by radiographic method of testing.

- |                    |                 |
|--------------------|-----------------|
| 1. Warpage         | 2. Undercutting |
| 3. Surface defects | 4. Porosity     |

3. Any crack or depression on the surface is considered as failure until it exceeds a \_\_\_\_\_ specified size.

- |                 |                   |
|-----------------|-------------------|
| 1. 1 mm or more | 2. 1.5 mm or more |
| 3. 2 mm or more | 4. 2.5 mm or more |

4. While cutting 6mm MS plate by arc welding, \_\_\_\_\_ pressure set for acetylene gas & \_\_\_\_\_ pressure set for oxygen gas.

- |   |   |
|---|---|
| 1. 0.15 kg/cm <sup>2</sup> , 1.5 kg/cm <sup>2</sup> | 2. 0.14 kg/cm <sup>2</sup> , 1.4 kg/cm <sup>2</sup> |
| 3. 1.5 kg/cm <sup>2</sup> , 0.15 kg/cm <sup>2</sup> | 4. 1.4 kg/cm <sup>2</sup> , 0.14 kg/cm <sup>2</sup> |

5. For pipe butt weld butt joint on M.S. pipe maintaining \_\_\_\_\_ bevel angle.

- |               |               |
|---------------|---------------|
| 1. 20° to 25° | 2. 30° to 35° |
| 3. 40° to 45° | 4. 45° to 55° |

6. In bronze welding, for welding of 10 mm C.I. plate \_\_\_\_\_ size bronze electrode is required.

- |            |            |
|------------|------------|
| 1. 1.15 mm | 2. 2.15 mm |
| 3. 3.15 mm | 4. 4.15 mm |

7. For cooling the hard facing job \_\_\_\_\_ insulating material is used.

- |         |             |
|---------|-------------|
| 1. Wood | 2. Plastic  |
| 3. Sand | 4. Ceramica |

8. CO<sub>2</sub> Welding is also called as \_\_\_\_\_.

- |        |        |
|--------|--------|
| 1. TIG | 2. MIG |
| 3. TAG | 4. MAG |

9. Which type of electrode is used for spot welding of refrigerator body?

- |                       |                        |
|-----------------------|------------------------|
| 1. Domed electrodes   | 2. Flat tip electrodes |
| 3. Pointed electrodes | 4. Mushroom electrodes |

10. Which type of electrode materials is used for spot welding of stainless steel sheet?

- |                           |                                  |
|---------------------------|----------------------------------|
| 1. Copper, Cadmium alloy  | 2. Special alloy                 |
| 3. Copper, chromium alloy | 4. Refractory metal compositions |

11. Open corner joint of MS plate is weld by \_\_\_\_\_ shield arc welding operation.

- |                      |                        |
|----------------------|------------------------|
| 1. Flat position     | 2. Horizontal position |
| 3. Vertical position | 4. Overhead position   |

12. \_\_\_\_\_ Shield arc welding operation is also called as " Out -of- position welding".

- |                      |                        |
|----------------------|------------------------|
| 1. Flat position     | 2. Horizontal position |
| 3. Vertical position | 4. Overhead position   |

13. In flat position shield arc welding operation electrode started from \_\_\_\_\_ in the direction of travel.

- |            |            |
|------------|------------|
| 1. 10°-15° | 2. 10°-25° |
| 3. 10°-35° | 4. 10°-45° |

14. \_\_\_\_\_ is most hazardous operation in SMAW.

- |                      |                        |
|----------------------|------------------------|
| 1. Flat position     | 2. Horizontal position |
| 3. Vertical position | 4. Overhead position   |

15. Angle of filler is keep \_\_\_\_\_ in vertical position SMAW operation.

- |            |            |
|------------|------------|
| 1. 10°-20° | 2. 20°-30° |
| 3. 30°-40° | 4. 40°-50° |

16. Pressure of both gases in shielded metal arc welding is \_\_\_\_\_.

- |                            |                            |
|----------------------------|----------------------------|
| 1. 0.13 kg/cm <sup>2</sup> | 2. 0.14 kg/cm <sup>2</sup> |
| 3. 0.15 kg/cm <sup>2</sup> | 4. 0.16 kg/cm <sup>2</sup> |

17. How much argon content is used in TIG welding DCSP of stainless steel plate having thickness 3 mm?

- |                           |                            |
|---------------------------|----------------------------|
| 1. 0.4 m <sup>3</sup> /hr | 2. 0.45 m <sup>3</sup> /hr |
| 3. 0.5 m <sup>3</sup> /hr | 4. 0.55 m <sup>3</sup> /hr |

18. In butt weld square butt joint on aluminium pipe, inclination of V block is

- |        |        |
|--------|--------|
| 1. 65° | 2. 75° |
| 3. 85° | 4. 80° |

19. In TIG welding of aluminium sheet \_\_\_\_\_ electrode is also used in place of tungsten electrode.

- |            |              |
|------------|--------------|
| 1. Cadmium | 2. Zirconium |
| 3. Helium  | 4. Aluminium |

20. In TIG welding, thickness of plate 3.2 mm, square butt joint \_\_\_\_\_ is diameter of electrode for aluminium sheet.

- |           |           |
|-----------|-----------|
| 1. 2.4 mm | 2. 3.2 mm |
| 3. 4.0 mm | 4. 4.8 mm |

21. In TIG, welding, overhead position, 60° single vee joint, \_\_\_\_\_ argon content used for aluminium sheet.

- |           |           |
|-----------|-----------|
| 1. 10 LPM | 2. 12 LPM |
| 3. 15 LPM | 4. 18 LPM |

22. In TIG welding, tungsten tip angle is ranges from 30°-60°, \_\_\_\_\_ is current required.

- |                  |               |
|------------------|---------------|
| 1. 25 A & above  | 2. 25 - 100 A |
| 3. 100 A & above | 4. 105-150 A  |

23. In wall thickness practice \_\_\_\_\_ plot first then weld.

- |                            |                          |
|----------------------------|--------------------------|
| 1. Orthographic projection | 2. Iso metric projection |
| 3. Development             | 4. Free hand sketches    |

24. For silver brazing of copper to stainless steel wall thickness horizontal position welding \_\_\_\_\_ size of nozzle is used.

- |      |      |
|------|------|
| 1. 0 | 2. 1 |
| 3. 2 | 4. 3 |

25. In marking \_\_\_\_\_ is used for to dry the M. S. sheet.

- |                       |                    |
|-----------------------|--------------------|
| 1. Solvent            | 2. Copper sulphate |
| 3. Aluminium sulphate | 4. Phosphate       |

26. The chisel head in edge chipping is

- |                         |                        |
|-------------------------|------------------------|
| 1. Free from sharp edge | 2. Free from long edge |
| 3. Free from mushrom    | 4. Free from flat edge |

27. In chipping operation look at the \_\_\_\_\_ edge of the chisel, not at the head of the chisel.

- |            |           |
|------------|-----------|
| 1. Sharp   | 2. Slant  |
| 3. Cutting | 4. Bottom |

28. Flame gonging is works on the principle of \_\_\_\_\_.

- |                          |                           |
|--------------------------|---------------------------|
| 1. Oxy-acetylene welding | 2. oxy-acetylene cutting  |
| 3. oxy-acetylene brazing | 4. oxy-acetylene drilling |

29. Out of the following which material is not cut by oxy-acetylene cutting process?

- |                  |                  |
|------------------|------------------|
| 1. Steel plates  | 2. Forging plate |
| 3. Casting plate | 4. Wooden plate  |

30. oxy-acetylene machines are classified in two types

- 1) Manually driven 2) \_\_\_\_\_ driven cutting m/c
- |              |                   |
|--------------|-------------------|
| 1. Hydraulic | 2. Pneumatic      |
| 3. Electric  | 4. Hydro-electric |

31. Which type of metal is weld buy brazing welding?

- |                   |                       |
|-------------------|-----------------------|
| 1. Ferrous metals | 2. Non ferrous metals |
| 3. Hard metals    | 4. Soft metals        |

32. Which type of metals are weld by oxy-acetylene process?

- |                   |                       |
|-------------------|-----------------------|
| 1. Similar metals | 2. Dissimilar metals  |
| 3. Ferrous metals | 4. Non ferrous metals |

33. Which type of oxy-acetylene welding process is used for welding MS & alloy steel metal?

- |                   |                   |
|-------------------|-------------------|
| 1. Bronze welding | 2. Fusion welding |
| 3. 1 & 2 both     | 4. None of them   |

34. Boiling point of oxygen is \_\_\_\_\_.

- |              |              |
|--------------|--------------|
| 1. -100° C   | 2. -132.26°C |
| 3. -182.96°C | 4. -185.70°C |

35. Argon percentage in air is \_\_\_\_\_.

- |           |           |
|-----------|-----------|
| 1. 0.0018 | 2. 0.0005 |
| 3. 0.9325 | 4. 0.03   |

36. Symbol of square butt weld is \_\_\_\_\_.

1. ) (

2. II

3. 

4. V

37. Plasma arc welding is used for cutting \_\_\_\_\_ metals

1. Ferrous

2. Non-ferrous

3. Soft

4. Hard

38. In plasma arc welding process arc is produced in between \_\_\_\_\_

1. Metal electrode & welding job

2. Tungsten electrode & welding job

3. Gas flame & welding job

4. Filter & welding job

39. Normally no filler rod is used in \_\_\_\_\_ type of welding process.

1. TIG

2. MIG

3. Plasma arc welding

4. Submerged arc welding

40. Temperature of the spark (arc) produced in arc welding is \_\_\_\_\_.

1. 1200° C

2. 2400° C

3. 3600° C

4. 4800° C

SPACE FOR ROUGH WORK

7S  
1S