

Total No. of Pages : 1

Register Number :

7855

Name of the Candidate :

DIPLOMA EXAMINATION DECEMBER 2013.

(WELDING ENGINEERING AND TECHNOLOGY)

110 — FUSION WELDING PROCESSES

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

(5 × 20 = 100)

All questions carry equal marks.

1. (a) Explain the oxy-hydrogen and air acetylene welding process with a neat sketch.
(b) With suitable sketch, explain any two welding torches.
 2. (a) Explain in detail how arc is initiated and their characteristics in arc welding.
(b) What are the requirements for an arc welding power sources?
 3. (a) Explain the types and classification of coated electrodes of AWS and IS system.
(b) Explain the meaning of E31132-CL, as per BIS low alloy steel arc welding electrode specification.
 4. (a) Briefly explain the working principle and process parameters of manual metal shield arc welding.
(b) Is it possible to weld dissimilar metals? Justify.
 5. (a) Explain with a neat sketch of Electro gas welding and its process parameters.
(b) Write the advantages, limitations and applications of Plasma arc welding process.
 6. (a) Explain how the surfacing is done by submerged arc welding process.
(b) Explain with a neat sketch of TIG welding and its industrial applications.
 7. (a) Explain the method of manufacturing of electrodes.
(b) Explain the working principle of CO₂ welding process.
 8. (a) Explain the working principle of electro-slag welding and how it is used for modification of surfaces.
(b) What is atomic hydrogen welding? List out the various applications and limitations.
-