Sample Question Paper-I

Course : Fabrication Technology and Erection Engineering 9233

Course Code : FC

Semester : Fourth

Subject : Welding Technology

Marks : 80 **Time: 3 Hours**

Instructions:

1. All questions are compulsory.
2. Illustrate your answers with neat sketches wherever necessary.
3. Figures to the right indicate full marks.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.

Q.1 [A] Answer any FOUR of the following: **08 Marks**

1) State any four reasons for weld distortion.
2) State the two objectives of stress relieving after welding.
3) How electric Arc is generated.
4) List out the types of weld joints
5) What is Cathode Spot?

Q.1 [B] Answer any TWO of the following: **08 Marks**

1) Draw a neat labelled sketch of carbide to water ethylene generator & state the chemical equation of the process.
2) Explain the effects of current & voltage on arc welding process.
3) Define weldability & state four factors affecting it.

Q.2 Answer any THREE of the following: **12 Marks**

1) Explain with neat sketch the modes of metal transfer mechanism (any four)
2) Explain the weldability of the three types of stainless steel.
3) What are the causes of undercut & excessive spatter & how it can be eliminated.

Q.3 Answer any THREE of the following: 12 Marks

1) Differentiate oxygen & Acetylene cylinders with respect to (I)Construction (II) size(III)fittings used on it (IV) colour
2) Draw the dynamic volt ampere characteristics of a D.C. welding power source state its effect on arc stability
3) Explain the variation in current with neat labelled sketch of moving coil high reactance welding transformer
4) State the specification of welding electrode & write the designation of each term involved in it.

Q.4 Answer any FOUR of the following: 16 Marks

1) Explain the reasons for cold cracking & state the remedial procedures for it.
2) What are the problems encountered in welding of cast iron & state how it is overcome.
3) State the signification of DCSP & DCRP in arc welding
4) Explain any two factors affecting arc stability
5) Draw a neat labelled sketch of carburizing flame in oxyacetylene welding & state its two uses.
6) State any four advantages & limitations of gas welding.

Q.5 Answer any THREE of the following: 12 Marks

1) What id carbon equivalent (C.E) & state how it affects wedability
2) Draw a neat labelled sketch of the Heat affected Zone (HAZ) of a typical mild steel welded structure.
3) State sequential procedure of brazing.
4) Describe flate & vertical welding positions with respect to i) electrode size ii) current

Q.6 Answer any THREE of the following: 12 Marks

1) Write four limitations of soldering.
2) State the objectives of heat treatment in welding.
3) Explain the relationship between welding & properties of copper.
4) Draw a neat sketch of any four braze joints.