(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 140656   Roll No.

B.Tech.

(SEM. VI) THEORY EXAMINATION 2013-14

ADVANCED WELDING TECHNOLOGY

Time : 2 Hours   Total Marks : 50

Note :– Attempt **all** questions.

1. Write brief notes on any **four** of following :   (4×3½=14)

    (a) Importance of Schaeffler diagram.

    (b) MIG versus TIG welding.

    (c) Advantages and disadvantages of friction welding.

    (d) Describe Electron beam welding. State its application.

    (e) Describe Plasma arc welding. State it advantages.

    (f) Explain the process of gas cutting.

2. Attempt any **two** parts :   (6×2=12)

    (a) State the advantages and disadvantages of Explosive welding.

    (b) Describe Dry underwater welding. State its advantages.

    (c) Write a short note on metallising.

3. Attempt any **two** parts : (6×2=12)

(a) Describe Distortion and Porosity as weld defects.

(b) List various non destructive testing methods. Describe Liquid penetrant test.

(c) Describe the Residual Life Assessment in brief.

4. Attempt any **two** parts : (6×2=12)

(a) What is HAZ in welding ? Why weld usually fails in HAZ ?

(b) What do you mean by heating rate and cooling rate . How it affects the properties of weld.

(c) Write note on Design of weld.