

(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 its 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.