

17621

11920

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Use of Non-programmable Electronic Pocket Calculator is permissible.

Marks

1. Attempt any FIVE of the following :

20

- (a) Define TIG. State any two equipments used for TIG.
- (b) State any two advantages & disadvantages of MIG.
- (c) Write down the safety practices involved in SAW.
- (d) Explain friction welding.
- (e) State the advantages of resistance welding.
- (f) State the causes of welding distortion.
- (g) Explain precision welding.

2. Attempt any FOUR of the following :

16

- (a) State the meaning of pipeline welding code.
- (b) Describe the operation of TIG welding.
- (c) State the equipments used in MIG welding.
- (d) Explain any two jigs & fixture used for SAW.
- (e) Compare FCAW with TIG welding.
- (f) Write down the advantages of ESW.

[1 of 2]

P.T.O.

- 3. Attempt any TWO of the following :** **16**
- (a) List the shielding gases and explain any one in detail.
 - (b) With a neat sketch, describe the principle of PAW.
 - (c) Define Micro welding. Explain its working process in detail.
- 4. Attempt any FOUR of the following :** **16**
- (a) Describe the principle of MIG welding.
 - (b) Draw a labelled sketch of FCAW.
 - (c) Explain the working of ESW.
 - (d) Define resistance welding. State its any two applications.
 - (e) State the factors influencing the choice of correction technique in welding.
 - (f) State the contents of WPS.
- 5. Attempt any TWO of the following :** **16**
- (a) Explain the working of Thermit welding with neat sketch.
 - (b) State the different techniques used for welding of composites. Explain any one.
 - (c) Explain the meaning of :
 - (i) AWS D 1.1
 - (ii) ASME Code B 31.8
- 6. Attempt any FOUR of the following :** **16**
- (a) Explain the principle of submerged Arc welding.
 - (b) Draw a neat sketch of LBW.
 - (c) Describe the fundamentals of resistance welding.
 - (d) State the types of welding distortion.
 - (e) List the advanced welding equipments required for latest welding methods.
 - (f) Explain Automatic welding.
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