17455

11920

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions : (1) All Questions are *compulsory.*

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following : **5 × 4 = 20**

(a) State any four types of welding joints and draw their symbols.

(b) Describe the process of arc blow.

(c) Define weldability and state any two factors affecting it.

(d) State any four effects of welding on the properties of metals.

(e) Describe the process of torch brazing.

(f) State any two advantages and two limitations of gas welding.

(g) State and explain any two arc characteristics in arc welding.

2. Attempt any FOUR of the following : **4 × 4 = 16**

(a) Describe the process of gas welding.

(b) State any four factors which affects the selection of power sources.

(c) List the different processes used for welding C.I. & suggest most suitable one.

(d) Suggest any two types of heat treatment used after welding.

(e) Describe the process of induction brazing.

(f) State the necessity of filler metals.

3. Attempt any TWO of the following : **8 × 2 = 16**

(a) State and explain the types of welding flames.

(b) Describe the different types of positions of welding with neat sketch.

(c) State the different processes used for welding of Aluminium & explain TIG welding.

4. Attempt any TWO of the following : **8 × 2 = 16**

(a) Describe the different types of metal transfer mechanisms used in Arc welding.

(b) Compare welding, brazing and soldering on any four points.

(c) State any four types of weld defects with its causes.

5. Attempt any TWO of the following : **8 × 2 = 16**

(a) Describe the process of solidification of metals in welding.

(b) Draw and explain HAZ for M.S.

(c) State the different processes used for welding of M.S. & explain metal Arc welding.

6. Attempt any FOUR of the following : **4 × 4 = 16**

(a) Describe the principle of soldering.

(b) State the process of Furnace brazing.

(c) State any two remedies for any two types of weld defects.

(d) Describe Arc stability.

(e) How the electrodes can be stored ?

(f) State the different processes used for welding of alloy steels.
