

22568

22223

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
 - (7) Preferably write answer in sequential order.

Marks

1. Attempt any FIVE of the following:

10

- a) List steps in forging operations.
- b) State the classification of manufacturing processes.
- c) List any four applications of extrusion.
- d) List essential properties of moulding sand.
- e) State any four essential qualities of core.
- f) State classification of welding processes.
- g) List important properties of plastic.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Describe two high rolling mill with sketch.
 - b) Explain stretch forming with sketch.
 - c) State the advantages and disadvantages of extrusion.
 - d) Explain design considerations in casting.
- 3. Attempt any THREE of the following:** **12**
- a) Explain construction and working of cluster rolling mill.
 - b) Compare hot working and cold working.
 - c) Explain centrifugal casting with sketch.
 - d) State casting defects and its remedies.
- 4. Attempt any THREE of the following:** **12**
- a) Distinguish between direct extrusion and indirect extrusion.
 - b) Describe pattern making allowances.
 - c) Explain casting system with sketch.
 - d) Describe oxy-acetylene welding with sketch.
 - e) Differentiate between soldering and brazing.
- 5. Attempt any TWO of the following:** **12**
- a) Describe electron beam welding. State its applications.
 - b) Compare TIG and MIG welding on following parameters
 - i) Sketch
 - ii) Welding rod
 - iii) Working
 - iv) Advantages
 - v) Temperature
 - vi) Applications
 - c) List any six plastic moulding processes along with their applications.

6. Attempt any TWO of the following:**12**

- a) Explain with sketch types of patterns.
 - b) Select relevant joining process for following joints and give justification.
 - i) Circuit Boards
 - ii) Boiler Vessels
 - iii) Stainless steel vacuum chamber
 - iv) Steel cup board
 - v) Tool shank and cutting tip
 - vi) Windows grills.
 - c) Explain with sketch blow moulding process.
-