

22568

24225

3 Hours / 70 Marks

Seat No.

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- 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) Use of Non-programmable Electronic Pocket Calculator is permissible.
(7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following :** **10**
- a) State the type of forging process.
 - b) Enlist various manufacturing process.
 - c) State advantage of wire drawing.
 - d) Define extrusion process.
 - e) Name any four material used for pattern making.
 - f) Give the list of equipment used for Gas welding.
 - g) Enlist any four properties of the plastics.

P.T.O.

- 2. Attempt any THREE of the following :** **12**
- a) Compare hot working and cold working process.
 - b) Explain impact extrusion process with help of neat sketch.
 - c) Explain principle and application of stretch forming.
 - d) Explain the casting defect with respect to causes.
- 3. Attempt any THREE of the following :** **12**
- a) Describe upset forging process with the help of neat sketch.
 - b) Explain working of cluster rolling.
 - c) State essential properties of moulding sand.
 - d) Describe allowances in pattern making.
- 4. Attempt any THREE of the following :** **12**
- a) Describe direct extrusion process with neat sketch.
 - b) Explain centrifugal casting process with neat sketch.
 - c) Compare hot and cold chamber die casting.
 - d) Classify welding process.
 - e) Describe effect in case of getting and risering system is not provided in moulding.
- 5. Attempt any TWO of the following :** **12**
- a) Compare TIG and MIG welding (Any six points)
 - b) Describe submerged arc welding with neat sketch and state it's application.
 - c) Explain injection moulding with it's application and advantages.

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

- a) Draw neat sketch of Cupola furnace and explain working with steps.
 - b) Suggest relevant joining process for following :
 - i) Structural steel
 - ii) Stainless steel pipe
 - iii) Pressure vessels
 - iv) Electronic circuits
 - v) Jewellery
 - vi) Aluminium plate
 - c) Give the list of at least three defects in welding. Describe their causes and also suggest remedies.
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