

22568

11920

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.

Marks

1. Attempt any FIVE of the following :

10

- (a) Classify forging processes.
- (b) Enlist any four applications of rolling.
- (c) State four advantages of wire drawing.
- (d) Enlist any four defects in casting.
- (e) List the equipments used for gas welding.
- (f) State two examples each of thermoplastics and thermosetting plastics.
- (g) Name any four types of commonly used patterns.

2. Attempt any THREE of the following :

12

- (a) Describe upset forging process with help of a neat sketch.
- (b) Describe impact extrusion process with help of a neat sketch.
- (c) Describe hot spinning process.
- (d) State essential properties of moulding sand.

- 3. Attempt any THREE of the following : 12**
- (a) Describe construction and working of two high rolling mill.
 - (b) Compare between press forging and hammer forging.
 - (c) Describe centrifugal casting process with help of a neat sketch.
 - (d) Describe following allowances given on patterns and justify their need :
 - (i) Shrinkage allowance
 - (ii) Machining allowance
- 4. Attempt any THREE of the following : 12**
- (a) Compare between direct extrusion and indirect extrusion.
 - (b) Describe functions of core and core prints in moulding.
 - (c) Describe effects in case of gating and risering system is not provided in moulding. Justify your answer with sketch.
 - (d) Describe submerged arc welding with help of a neat sketch.
 - (e) Compare between Gas Welding and Arc Welding.
- 5. Attempt any TWO of the following : 12**
- (a) Describe TIG welding process along with its advantages and applications.
Draw representative sketch.
 - (b) Compare between welding, soldering and brazing.
 - (c) Describe injection moulding process with help of a neat sketch.
- 6. Attempt any TWO of the following : 12**
- (a) Compare between hot chamber die casting and cold chamber die casting.
 - (b) Give a list of atleast three defects in welding. Describe their causes and also remedies.
 - (c) Describe with help of neat sketch :
 - (i) Blow Moulding
 - (ii) Vacuum Forming
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