

22446

23124

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) 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) Designate a tool 8-10-6-6-5-10-0.8 signature in ASA system.
 - b) Enlist the types of shapers.
 - c) State properties of moulding sand.
 - d) Define forging. State its types.
 - e) State the four advantages of Plasma Arc welding.
 - f) Name any four types of Pattern.
 - g) State the applications of TIG welding.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Explain the mechanics of chip formation with neat diagram.
 - b) Express the specifications of slotting machine.
 - c) State importance of colour scheme for pattern. Illustrate a common colour scheme.
 - d) Differentiate between open die forging and closed die forging.
- 3. Attempt any THREE of the following:** **12**
- a) Explain cutting parameters of Lathe machine with their SI units.
 - b) Draw a neat sketch of Radial drilling machine and label the all parts.
 - c) Explain any two types of feed in connection with the working of a Slotter machine.
 - d) Explain the processes of sand preparation and sand conditioning.
- 4. Attempt any THREE of the following:** **12**
- a) Write down the steps involved for internal thread cutting on lathe machine parts.
 - b) Explain working principle of shaping machine with neat sketch.
 - c) Explain calendering plastic process with neat sketch.
 - d) Describe with neat sketch Blow moulding process.
 - e) Describe with neat sketch direct extrusion process.
- 5. Attempt any TWO of the following:** **12**
- a) Explain various drilling machine operation with neat sketch. (Any three)
 - b) Explain construction and working of cupola furnace.
 - c) Describe in brief the various types of Rolling Mills used in Hot Rolling.

22446

[3]

Marks

6. Attempt any TWO of the following:

12

- a) Explain key way machining process on slotting machine.
 - b) Determine three defects in welding with their causes and remedies.
 - c) Explain with neat sketch forging process for making bolt head.
-