

22446

21819

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.

Marks

1. Answer any FIVE of the following :

10

- (a) List types of chips produced in machining processes.
- (b) List any four accessories used on Lathe.
- (c) Define feed and speed in a shaping machine.
- (d) List any four materials used for pattern making.
- (e) List any four casting defects.
- (f) State the applications of rolling.
- (g) State the applications of TIG welding.

2. Answer any THREE of the following :

12

- (a) Write specifications of slotting machine.
- (b) Explain any four properties of Moulding sand.
- (c) Compare between Hot rolling and Cold rolling.
- (d) Explain with neat sketch the working principle of MIG.

- 3. Answer any THREE of the following : 12**
- (a) Explain single point cutting tool signature.
 - (b) Explain with neat sketch the quick return mechanism.
 - (c) List safety practices to be followed in foundry.
 - (d) Compare between soldering and brazing.
- 4. Answer any THREE of the following : 12**
- (a) Draw a neat sketch of radial drilling machine and label the parts.
 - (b) Classify the slotting machine and explain the working principle of slotting machine.
 - (c) Explain with neat sketch the injection moulding.
 - (d) List the types of rolling mills and its applications.
 - (e) List any four welding defects and their causes.
- 5. Answer any TWO of the following : 12**
- (a) Explain with neat sketch following drilling operations :
 - (i) Reaming
 - (ii) Boring
 - (iii) Counter sinking
 - (b) Enlist the types of pattern and state the procedure for pattern construction.
 - (c) Explain with neat sketch any three press forging operations.
- 6. Answer any TWO of the following : 12**
- (a) List the types of taper turning methods and explain any one with neat sketch.
 - (b) Explain with neat sketch the calendaring process of plastic manufacturing.
 - (c) Explain with neat sketch the direct extrusion and state its advantages and disadvantages.
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