

22439

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 answer 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) Define forgeability.
 - b) State the advantages of forging process.
 - c) State the advantages of sheet metal forming process. (Any four points)
 - d) State any four materials used for the sheet metal working process.
 - e) Define welding.
 - f) State the purpose of surface cleaning processes. (Any four points)
 - g) State any four advantages of CNC m/c.

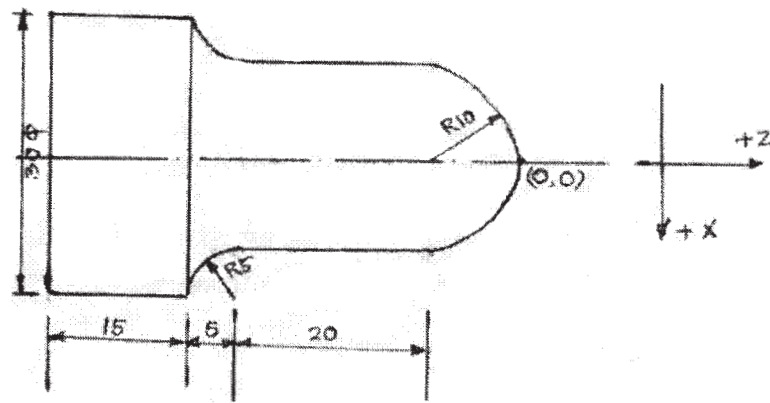
P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Differentiate open die and closed die forging. (Any four points)
 - b) Give detail classification of forging process.
 - c) Describe constructions details of fly press with neat sketch.
 - d) Describe with neat sketch metal inert gas welding.
 - e) State any four disadvantages of CNC machine.
- 3. Attempt any THREE of the following:** **12**
- a) State the forging sequence for the connecting rod with necessary sketches.
 - b) Describe constructional details of progressive die with their applications.
 - c) Describe any four die accessories with neat sketch.
 - d) Describe spot welding process with suitable sketch.
- 4. Attempt any THREE of the following:** **12**
- a) Sketch and describe any two welding flames.
 - b) Describe with neat sketch projection welding process state their applications.
 - c) Describe following operation with neat sketch –
 - i) Blanking
 - ii) Picking.
 - d) Describe constructional details of combination die.
 - e) Describe tumbling process with neat sketch.
- 5. Attempt any TWO of the following:** **12**
- a) Material coating process improves the life of component justify your answer.
 - b) Justify the use of foot insert. State any four advanced material used for inserts. Identify the parameters of insert designated as –
C-N-M-G-12-04-08 as per ISO.
 - c) Describe the absolute and incremental co-ordinate system for the given part program with example.

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[4]

Marks



TURNING CENTRE PROGRAMMING
EX: 3

Fig. No. 3
