

SE/III/CBES/PROD/Manufacturing Engg-I/01-06-15



(3 Hours)

Q.P. Code : 4809

[Total Marks : 80

- (1) Question No. 1 is compulsory.
- (2) Attempt any three questions out of remaining five questions.
- (3) Assume suitable data wherever required, but justify the same.
- (4) Figures to the right indicate full marks.
- (5) Illustrate answers with neat sketches wherever required.
- (6) Answers to questions should be grouped and written together.

1. Explain in brief with the help of neat sketch: **(Any Four)** (5 X4)
 - (A) Classification of machine tools.
 - (B) Deep hole boring machine.
 - (C) Feed mechanism of shaper.
 - (D) Elements of typical internal broach.
 - (E) Cutting tool material properties.
2. (A) Why chucks are used? List various types of chucks used in lathes. Describe any one. (10)
 (B) Explain all principal parts of radial drilling machine with neat sketch and compare it with Up - right drilling machine. (10)
3. (A) Describe the principle of quick return mechanism as used in shapers. (10)
 (B) List the different types of indexing methods in milling machines. Describe any one. (10)
4. Explain in brief with the help of neat sketch: **(Any Four)** (5 X4)
 - (A) Capstan Vs Turret lathe.
 - (B) Shaper Vs planner.
 - (C) Horizontal broaching machine.
 - (D) Blow moulding related with ceramics.
 - (E) Calculation of machining time for shaping operation.
5. (A) How milling machines are classified? Explain with neat sketch Up and Down Milling. (10)
 (B) What is mould with plastics? Explain injection moulding in details. (10)
6. Explain in brief with the help of neat sketch: **(Any Four)** (5 X4)
 - (A) Slotting Machines.
 - (B) Power Hack-saws cutting off machines.
 - (C) Types of broaches.
 - (D) Extrusion of glass.
 - (E) Transfer moulding.