

R07**Code: R7310304****B.Tech III Year I Semester (R07) Supplementary Examinations December 2015****MACHINE TOOLS**

(Mechanical Engineering)

(For 2008 regular admitted batch only)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Explain the various elements of a Single-point cutting tool with the help of a neat diagram.
(b) What is meant by 'Hand' of a single point cutting tool?
- 2 How is lathe specified? Explain with neat sketch the relevance of each of the specification points.
- 3 How are shapers classified? Explain working of any one of shaper.
- 4 (a) What safety precautions are necessary in Drilling works?
(b) Outline the difference between drilling, reaming and boring.
(c) What are the various kinds of drills used in industry? How are drills specified?
- 5 Determine the cutting time required in face milling a work piece 400 mm long and 250 mm wide with a face mill of 100 mm diameter having 8 teeth. Depth of cut is 3.0 mm, Cutting speed = 75 m/min and Feed = 0.007 mm/tooth.
- 6 What are the types of Center less grinding operations? Explain any one of them in detail.
- 7 Describe the operation of Continuous type broaching machine.
- 8 What is an Indexing jig? What are the various kinds of indexing devices commonly used?
