

Code: 9A03503

B.Tech III Year I Semester (R09) Supplementary Examinations June 2017

MACHINE TOOLS

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) What do you understand by semi orthogonal cutting?
(b) Explain the feature of orthogonal cutting and oblique cutting.
- 2 With a block diagram, explain the method of taper turning by tail stock set-over method.
- 3 With a neat sketch, explain the kinematic scheme of the slotter.
- 4 What is a jig boring machine? With a block diagram explain various controls of a jig boring machine.
- 5 (a) What is compound indexing? In how many stages is it performed?
(b) Explain the principle of compound indexing with an example.
- 6 Explain the principle, construction and working of a plain cylindrical grinder with a neat block diagram.
- 7 What is a broaching machine? Classify and explain various types of broaching machines.
- 8 What are jigs and fixtures? What are the important factors to be considered in the design of jigs and fixtures?
