

Code: 9A03503

R09

B.Tech III Year I Semester (R09) Supplementary Examinations June 2016

MACHINE TOOLS

(Mechanical Engineering)

Time: 3 hours Max Marks: 70

> Answer any FIVE questions All questions carry equal marks

- 1 Discuss about various types of chips produced during machining of various metals with neat figures.
- 2 What are collets? Explain different types of collets with neat sketches.
- 3 Explain various Quick Return mechanisms used in shaping machine.
- (a) How is a boring machine specified?
 - (b) Explain various types of boring machines.
- With a neat block diagram, explain the features and working of a universal milling machine. 5
- 6 What is grinding? Explain various forms of abrasive tools used for grinding.
- (a) Compare and contrast broaching and grinding. 7
 - (b) List the application of broaching.
- prin NWW.Filist What is a hinged clamp? Explain its principle and operation with neat sketch. 8