

NAME.....

ROLL NO.....

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-2008

**III B.TECH SUPPLEMENTARY EXAMINATIONS
MACHINE TOOLS
(MECHANICAL ENGINEERING)**

AUG/SEP 2008

TIME-3 HOUR
MARK-80

ANSWER ANY FIVE QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

1. (a) Enumerate the factors on which tool wear and tool life depend.
(b) What are essential characteristics of cutting fluid?
2. (a) What are the different types of taper turning attachments attached to lathes? Discuss them briefly.
(b) Classify the Lathe machines and explain their important advantages.
3. What is Swiss automatic screw machine? How it functions and what are its main applications?
4. (a) Differentiate slotter and vertical shaper?
(b) Describe constructional features of speed gearbox of planer?
5. (a) How a drilling machine is specified?
(b) Define and write the formulae of the following for a drilling machine
 - i. Cutting speed
 - ii. Feed
 - iii. Machining time in drilling
6. What are the various work holding devices used in milling? Explain their relative applications and disadvantages.
7. (a) What is the classification method that could be used for grinding machines? Give the application of each variety of grinding machines.
(b) Explain the correct transverse setting for an external cylindrical grinding operation showing the relationship of the wheel and the work.
8. Explain the following clearly
 - (a) Cylindrical super finishing
 - (b) Flat and Spherical super finishing