

Reg. No. _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
THIRD SEMESTER B.TECH DEGREE EXAMINATION, JANUARY 2017

MP 201: MACHINE TOOL TECHNOLOGY (PE)

Max. Marks:100

Duration: 3 Hours

PART A

(Answer any three questions.10 marks for each question.)

1. Discuss the constructional features of an engine lathe.
2. A steel rod of 2 m length and 50 mm diameter has to be turned in a lathe in order to reduce its diameter of 40 mm upto 0.5 m from one end. Which all work holding devices are to be used for this operation? Illustrate and explain.
3. An arbor has a major role in column and knee type milling machine. Justify this statement with proper sketch.
4. Explicate drilling, reaming, counterboring and countersinking.

PART B

(Answer any three questions.10 marks for each question.)

5. Describe the principal parts of the machine in which a v-block, square block etc can be made.
6. Cutting stroke is slower than return stroke in a whitworth quick return mechanism- evaluate the statement with sketches.
7. Differentiate truing and dressing of a grinding wheel.
8. Explain centre less, thread, form, tool and cutter grinding.

PART C

(Answer any four questions.10 marks for each question.)

9. Differentiate gear shaping and gear shaving.
10. Discuss bevel gear generating process.
11. What are the two basic types of single purpose hobbing machines?
12. Analyse the difference between honing and lapping.
13. Differentiate magnetic float polishing and electro polishing.
14. Explain shaft superfinishing with sketches.