

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

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

**Course Code: MP201**

**Course Name: MACHINE TOOL TECHNOLOGY (PE)**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer any three full questions, each carries 10 marks.*

Marks

- |   |   |      |
|---|---|------|
| 1 | With the help of neat sketches explain the constructional features of Lathe.  | (10) |
| 2 | Explain about tumbler gear feed reversing mechanism.                          | (10) |
| 3 | What are the various work holding devices used in milling machine? Elaborate. | (10) |
| 4 | Describe three different operations performed on milling machine.             | (10) |

**PART B**

*Answer any three full questions, each carries 10 marks.*

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|---|---|------|
| 5 | Explain in detail about centreless grinding.                          | (10) |
| 6 | Explain the following : (a) Cylindrical grinding (b) Surface grinding | (10) |
| 7 | Differentiate between shaper and planer with the help of diagrams.    | (10) |
| 8 | Explain the main work holding devices used in shaper.                 | (10) |

**PART C**

*Answer any four full questions, each carries 10 marks.*

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|----|---|------|
| 9  | Illustrate with neat sketches the rack cutter and pinion cutter generation methods of a gear.         | (10) |
| 10 | List out the advantages and limitations of gear hobbing process over other gear generation processes. | (10) |
| 11 | Distinguish between gear milling and shaving.   | (10) |
| 12 | What is honing? How and why it is performed.  | (10) |
| 13 | Enumerate on the lapping process.   | (10) |
| 14 | Discuss the process and applications of buffing.  | (10) |

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