



P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Fourth Semester, B.E. - Industrial and Production Engineering

Semester End Examination; June - 2017

Production Technology - II

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

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|------|--|----|
| 1 a. | List out the various operations that can be performed on a centre, lathe, explain any two in detail. | 10 |
| | b. Explain the following lathe Accessories : | 10 |
| | (i) Checks (ii) Mandrels. | |
| 2 a. | With a neat sketch, explain Turret indexing mechanism. | 12 |
| | b. Differentiate between a capstan and turret and an engine lathe. | 5 |
| | c. Define speed, feed and depth of cut related to lathe. | 3 |

UNIT - II

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|------|---|----|
| 3 a. | Sketch and explain Radial drilling machine. | 10 |
| | b. List out the various drilling operations that can be performed in a drilling machine, explain any two in detail. | 10 |
| 4 a. | List the main parts of a shaper machine. Explain any two of them. | 10 |
| | b. Write a note on the following : | 10 |
| | (i) Double housing planer (ii) Open side planer. | |

UNIT - III

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| 5 a. | Discuss universal Milling machine. | 8 |
| | b. With a neat sketch, explain up milling and down milling. | 12 |
| 6 a. | List the different types of Milling operations. Explain any two of them in detail. | 10 |
| | b. Explain index 69 divisions by compound indexing. | 10 |

UNIT - IV

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|------|---|----|
| 7 a. | Explain different types of Abrasives. | 10 |
| | b. Discuss Horizontal spindle machine with reciprocating table. | 7 |
| | c. List the important factors to be considered before selecting a grinding wheel. | 3 |
| 8. | Sketch and explain the following, high lighting the field of application : | |
| | (a) Lapping process | 20 |
| | (b) Housing Process. | |

UNIT - V

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|------|---|----|
| 9 a. | Differentiate between Traditional and Non-Traditional machining processes. | 5 |
| b. | Discuss the classification of Non-Traditional machining processes. | 6 |
| c. | With a neat sketch, explain the principle of AJM with its applications. | 9 |
| 10. | Explain with neat sketches, principles, advantages and disadvantages of the following Non-Traditional machining processes : | |
| | (i) Ultrasonic machining process | 20 |
| | (ii) Laser beam machining process | |

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