

Roll No.

Total Pages : 02

BT-5/D-18

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PRODUCTION TECHNOLOGY-II
ME-311N

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. (a) Name the mechanism which transform rotary motion into translator (or linear) motion in various machine tools. Also state the advantages and limitations of those mechanisms. 8
 (b) How are machine tools provided with stepless drives ? 7

2. Design a speed gear box for a drilling machine requiring six spindle speeds with common ratio $\phi = 1.25$ ($2^{1/3}$). The design of the gear box should include :
 (a) Drawing the gear diagrams
 (b) Ray diagram
 (c) Number of teeth of all the gears. 15

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Unit II

3. Write down the short notes on the following :
 (a) Discuss the various thread rolling machine. 8
 (b) Straight flutes, helical flutes, Left handled flutes, Right handled flutes. 7

4. (a) Write the help of the diagram, explain the principle of gear cutting with the help of a rotary gear shaper cutter. 10
 (b) What is Rack planning process ? Explain. 5

Unit III

5. Explain the principle of Ultrasonic machining with the help of neat diagram. 15

6. Write short notes on the following :
 (a) Laser Beam Machining 7
 (b) Self excited vibration (chatter). 8

Unit IV

7. Write short notes on the following :
 (a) The principle of Six point location 7
 (b) Diamond pin locators. 8

8. (a) Explain the construction and use of Template jig. 10
 (b) Briefly describe Broading Fixture. 5

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