

Printed Pages: 3

NME-503

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 2012254

Roll No.

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B.TECH.**Regular Theory Examination (Odd Sem-V), 2016-17**

**MANUFACTURING SCIENCE &
TECHNOLOGY - II**

Time : 3 Hours**Max. Marks : 100****SECTION - A**

1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. (10×2=20)

- Name the two systems of designating the cutting tool.
- Discuss the variables affecting tool life.
- List the difference between shaper and planner.
- How the size of the boring machine is specified
- Mention four important factors that influence the selection of grinding wheel.
- Define lapping.
- Mention the applications of Friction Welding.

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- h) What are different types of bonds used in Grinding Wheel?
- i) Define Weldability.
- j) State the applications of AJM.

SECTION - B

Note: Attempt any 5 questions from this section. (5×10=50)

- 2. Discuss the various types of chips produced during metal machining with neat sketch.
- 3. Explain “Merchant force circle” along with assumptions.
- 4. Mention the specifications of lathe with a neat sketch. Also give the classification of lathe machines.
- 5. Explain up milling and down milling with a neat sketch.
- 6. Explain the working mechanism of cylindrical and surface grinding.
- 7. Define the terms :
 - a) Limits
 - b) Fits
 - c) Tolerance
 - d) Allowance
 - e) Basic Size
- 8. Explain TIG and MIG welding process and enumerate its advantages.
- 9. Write short notes on
 - a) WJM
 - b) USW

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SECTION - C

Note: Attempt any 2 questions from this section (2×15=30)

10. a) Sketch and explain the working of shaper. (6)
- b) What is meant by grit, grade and structure of grinding wheel? Explain. (9)
11. a) Write the various welding defects. Give the reasons and suggest the remedies. (9)
- b) Write a note on various brazing methods. (6)
12. Explain in detail the ECM and EBM process with neat sketch. (15)

