**BBDNITM**

**MECHANICAL DEPARTMENT**

**SESSION(2018-19)**

**Subject- Manufacturing Science & Technology-II[ RME-503]**

**Assignment no. 3**

1) List out specifications of a Grinding wheel.

2) What do you mean by Dressing and Truing of Grinding Wheel?

3) Discuss ‘Metrology’ as a means of achieving quality control. Give the relative characteristics of line and end standards.

4) How do you classify fits? Explain briefly basis of Fit or Limit system. What is ‘Taylor’s Principle’? Explain

5) What are the systems of specifying tolerances; which system is used the most and why? How are holes; shafts and fits designated?

6) Discuss the honing process in detail with neat sketch.

7) Briefly describe the main feature of surface grinding.

8) What is mean by grit, grade and structure of grinding wheel?

9) What are the various factors to be considered in the selection of a grinding wheel ? Discuss each in detail.

10) Why surface finish is important for many applications? Illustrate your answer.

11) Explain the Lapping process. State its uses, limitations and advantages.

12) Explain the factors which affect the surface finish in plain milling operations.

13) A steel block of 20 mm width is being milled using a straight slab milling cutter with 20 teeth, 50 mm diameter, and 10 º radial rakes. The feed velocity of the table is 15 mm/min and the cutter rotates at 60 rpm. If a depth of cut of 1 mm is used, what will be the power consumption? Assume shear-strength (k) of steel is 250 N/mm2 and tool-chip interface friction µ = 0.3.