

Roll No

IP/IEM/ME/PR-603 (GS)**B.E. VI Semester**

Examination, May 2018

Grading System (GS)**Metal Cutting and CNC Machine***Time : Three Hours**Maximum Marks : 70*

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) What are the different types of lathes? Discuss in brief.
b) Explain the various important accessories of a lathe machine. **rgpvonline.com**
2. a) Explain in brief the selection of a grinding wheel.
b) Draw a schematic diagram of centre-less grinding machine and explain the through feed process of centre-less grinding.
3. a) Explain the process of up-milling and down milling. What are the advantages of each process?
b) Describe in brief various types of milling machines.
4. a) Explain in brief the quick return mechanism used in shaper.
b) Discuss the various causes of surface irregularities.

5. a) Explain briefly the open loop and closed loop type control system.
b) Discuss the difference between the NC and CNC machines.
6. a) How tool geometry affects the cutting parameters? Discuss in brief.
b) What are the different types of drilling machines?
7. a) Explain in brief the different methods of gear manufacturing.
b) What is part programming? Explain the different steps during the preparation of a part program.
8. Write short notes on:
 - a) Broaching
 - b) CLA values
 - c) PLC
