Code: ME5T6

III B.Tech - I Semester – Regular/Supplementary Examinations October 2017

CAD/CAM
(MECHANICAL ENGINEERING)

Duration: 3 hours   Max. Marks: 70

PART – A
Answer *all* the questions.   All questions carry equal marks

11x 2 = 22 M

1. a) Briefly describe the types of storage devices used in computer.
   b) What do you understand by the CPU?
   c) What is meant by geometric modeling?
   d) Write the characteristics of Bezier curves.
   e) Write a few merits and demerits of NC systems.
   f) What are the steps in APT?
   g) Write a short note on CAPP.
   h) What is production flow analysis (PFA)?
   i) Explain the applications of CIM systems.
   j) What is the role of human labor in the manufacturing systems?
   k) Write short note on:
      (i) Translation   (ii) Rotation

PART – B

Answer any ***THREE*** questions.   All questions carry equal marks.   16 x 3 = 48 M

2. a) Describe the Bresenham's algorithm with an example.

      10 M

   b) Write short note on: 6 M
      (i) video display devices   (ii) input devices

3. a) What are the advantages of Bezier curves over cubic
      curves.   8 M

   b) What do you understand by the surface representation
      methods?   8 M

4. a) Enumerate the advantages of computer aided part program
      when compared to manual part program.   8 M

   b) Discuss the special features of NC machine tools when
      compared to the conventional machine tools.   8 M

5. a) What is group technology? Explain part classification and
      write various coding systems.   8 M

   b) What are the functions of contact inspection methods and
      non-contact inspection methods?   8 M

6. a) Define CIM. Draw and discuss CIM wheel.   8 M

   b) Explain the different elements of CIM.   8 M