

Code No: 57024

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November - 2015

CAD/CAM

(Common to ME, AE, AME, MSNT)

Time: 3 Hours

Max. Marks: 75

Answer any Five Questions
All Questions Carry Equal Marks

- 1.a) What are the various input devices used in CAD/CAM hardware and mention their relative advantages.
b) How the computers are used in design, planning and manufacturing in Automation. [8+7]
- 2.a) How the two-dimensional transformations are used for translation and rotation.
b) What are the functions of graphics package and explain about Raster Scan graphics? [7+8]
- 3.a) What are the various geometric modeling techniques used in the construction?
b) What are the various methods used for surface representation and mention their utility in developing CAD software? [7+8]
- 4.a) What are the display commands used in drafting and modeling systems.
b) What are the various solid modeling techniques used in practical and explain about constructive solid geometry (CSG). [7+8]
- 5.a) Sketch a CNC machine indicating various elements and mention its advantages.
b) What are the sequence part programmings of drilling of holes in a plate? [8+7]
- 6.a) How the part families are segregated in Group Technology and explain its importance in Automated manufacturing.
b) Differentiate between retrieval type and generative type of computer aided process planning. [8+7]
- 7.a) How the computer aided process control and computer aided quality control will be adopted in Automation.
b) What are the various optical measuring methods used during in process measurement. [7+8]
- 8.a) What are the various computer integrated methods used in practice and explain the methods of material handling.
b) Describe the involvement of human labor and robots in computer integrated manufacturing. [8+7]