

Code No: 57024

R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, February/March - 2016

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) Explain the basic structure and basic configuration of CAD/CAM software.
- b) With neat sketch, explain the working principle of Refresh display and DVST.
- c) Briefly discuss the various input devices for the graphics and state their functions. [5+5+5]

- 2.a) Describe the Bresenham's algorithm.
- b) Derive the transformation matrix for rotation about an arbitrary point.
- c) What is clipping? Describe any one clipping algorithm. [5+5+5]

- 3.a) What are the various types of curve fitting manipulation techniques? Explain them.
- b) What is feature modeling? Explain with an example. [8+7]

- 4.a) What are the various types of display control commands? Explain their use with example.
- b) Describe the Euler-Poincare formula for the boundary representation of solid modeling with an example. [7+8]

- 5.a) Draw the manual part programming sheet and explain how the entries are made in the sheet with the help of an example.
- b) Discuss the various advantages of CNC over NC and conventional systems. [8+7]

- 6.a) What is production flow analysis? Discuss various steps involved in it.
- b) What are the two approaches to computer aided process planning? Explain any one of them. [7+8]

- 7.a) Discuss the important effects likely to result from the application of computer aided quality control systems.
- b) Explain how the inspection sensor technologies are classified. [8+7]

- 8.a) Discuss the principle of material handling. Name and describe the five types of material handling devices.
- b) Discuss the data files and system reports generated by the computer control systems of an FMS. [8+7]

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