

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD IV.B.TECH - I SEMESTER REGULAR EXAMINATIONS NOV/DEC, 2009 CAD/CAM (Common to ME, MMT, MEP, AE)

Time: 3hours

## Answer any FIVE questions All questions carry equal marks

Max.Marks:80

- 1.a] What is meant by Engineering Analysis and Engineering Synthesis?
- b] Define Automation? Explain Different types of manufacturing Automation systems. [6+10]
- 2. What is meant by Concatenation Matrix? Demonstrate how translation; scaling and rotation operations can be performed simultaneously on a graphic element using Concatenation Matrix. [16]
- 3. Describe with the help of neat sketches the major surface entities provided CAD/CAM systems. [16]
- 4.a] Differentiate between surface, solid and wire frame modeling representation.
- b] Describe the variable and linear sweep representation schemes. [8+8]
- 5.a] Discuss the different types of NC words used in part programme technique.
  - b] Draw the block diagram of DNC and Explain briefly about structures. [8+8]
- 6.a] Explain the composite part concept in group Technology with example.
- b] Explain the "MICLASS" classification and coding systems used in GT. [8+8]
- 7. Explain the concept of "manufacturing flexibility". What are its objectives? Write about each type of flexibility. [16]
- 8.a] What are the two approaches to computer aided process planning. Explain briefly.
- b] What are the benefits of CAPP? Discuss in detail. [8+8]

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