JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, December - 2014
CAD/CAM
(Common to ME, AE, AME)

Time: 3 Hours

Max. Marks: 75

Answer any Five Questions
All Questions Carry Equal Marks

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1.a) Briefly discuss the various input devices for the graphics and state their functions.
 b) Briefly explain the working of refresh display and DVST.
 c) What are the benefits of CAD/ CAM?

2.a) What is aliasing ? Describe different methods of carrying out anti-aliasing.
 b) What are the various types of coordinate systems used to input store.
 c) What is data base structure? Explain the popular database model with an example.

3.a) How do you classify the various modeling systems on the basis of their capabilities
 b) Describe with the help of neat sketches the major surfaces entities provided by the CAD/CAM systems?

4.a) What is importance of layers in drafting? Explain with an example.
 b) Describe the Euler-Poincare formula for the boundary representation of solid modeling with an example.

5.a) Discuss the salient features of machining centers.
 b) Under what circumstances the adaptive control machining system is used? Discuss briefly.

6.a) Discuss the benefits of group technology.
 b) What are the part families? What are the methods used for grouping of parts?
 c) What is generative process planning? Explain.

7.a) What are the functions of Machine vision? Describe the procedure of machine vision.
 b) With the help of schematic diagram explain the measurement system based on Scanning laser beam system. Also explain its application in CAQC systems.

8.a) Describe different types of the material handling systems used in CIM briefly.
 b) Discuss the role of computer networks in CIM.

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