Code.No: 37260   R05   SET-4

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   Max.Marks:80

Answer any FIVE questions
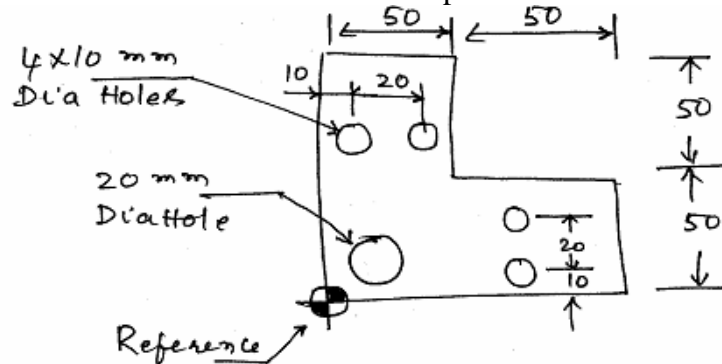**All questions carry equal marks**
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1.a]   What are the different types Input Devices used in CAD System. Explain
  b]   Explain with Block Diagram the product Design and manufacturing cycle using
       CAD/CAM.   [8+8]

2.   Explain how "NURBS" are defined? What are the advantages of "NURBS" over
       Bezier curves?   [16]

3.   Develop the relationship between the position, tangent and twist vectors at the
       corner points of a Bezier surface patch and write boundary conditions and co-
       efficient matrix.   [16]

4.   What do you mean by geometric modeling ? Enumerate various solid modeling
       techniques and compare them.   [16]

5.a]   Discuss the basic Elements of Numerical control system.   [10+6]
  b]   Write a part programme to Drill the holes in the work piece shown in figure. The work
       piece thickness is 10mm. Select the suitable speed and feed values.

6.   By using "GT"; what types of benefits are associated in the functional Areas.
  a]   Manufacturing   b]   Production Control   c]   Quality Control   [5+5+6]

7.a]   What are the three major elements of an ASRS? Explain.
  b]   What are the applications of FMS?   [8+8]

8.   Write short notes on the following
  a]   Machinability Data Systems.
  b]   Computer generated time Standards.
  c]   Automated Process Planning Vs traditional process planning.   [5+5+6]
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