Code: 13A03601

R13

B.Tech III Year II Semester (R13) Supplementary Examinations December 2016
CAD/CAM
(Mechanical Engineering)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)
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1   Answer the following: (10 X 02 = 20 Marks)
   (a) Name the techniques that are used for improving the design of a product through CAD.
   (b) Define Rendering.
   (c) List out the types of Geometric modeling.
   (d) What do you understand the 'Snap' feature in CAD?
   (e) Write the applications of CNC machine.
   (f) Mention any four types of CNC machines.
   (g) What are Flexible Transfer Lines (FTL)?
   (h) Write the benefits of FMS.
   (i) Write the examples of Shop Floor data collection.
   (j) List the functions of MRP modules.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2   Explain the elements of a CAD system.
OR
3   Write short notes on the following 2-D transformations:
   (a) Scaling.
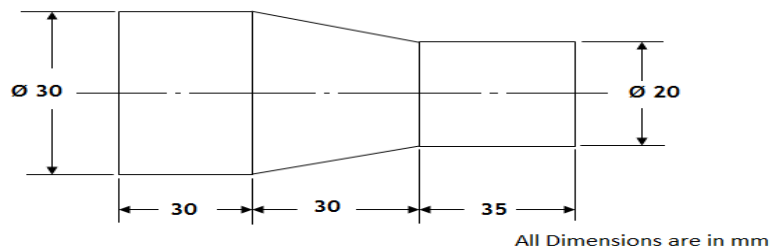   (b) Translation.

UNIT – II

4   Explain the following Geometric Modeling techniques:
   (a) Surface Modeling.
   (b) Constructive Solid Geometry (CSG).
OR
5   Describe the features of a Drafting package

UNIT – III

6   Construct a CNC program for given diagram with description and process diagram.

All Dimensions are in mm

OR
7   Briefly explain the components of a DNC and its advantages

UNIT – IV

8   Describe in detail the various components of FMS and write its advantages and disadvantages.
OR
9   Explain in detail the various components of FMS.

UNIT – V

10   Classify the Coding systems and explain the Opitz classification system with a diagram.
OR
11   Explain the following concepts:
   (a) Master Production Schedule.
   (b) Materials Requirement Planning.

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