Code No. 6137 / O

FACULTY OF ENGINEERING

B.E. 3/4 (Mech./Prod.) II – Semester (Old) (Suppl.) Examination, December 2013

Subject : CAD / CAM

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

1 What way the CAD workstation differ with desktop system?

2 How does OS Kernel works?

3 Write the transformation matrix for rotation in homogeneous coordinates.

4 Explain Boolean operation with neat sketches

5 Write the characteristics of Bezier curves

6 Write the format for 681 drill canned cycle

7 How do you ensure tool length and cutter radius compensation?

8 Differentiate online offline programming methods

9 What are basic elements of FMS?

10 What are the types of GT machine cells?

PART – B (50 Marks)

11 a) Explain with the help of neat sketch the working of CRT type display device.

b) Write various CAD database models.

12 Compare wire-frame, surface and solid modeling with respect to their merits and demerits.

13 Discuss the APT language structure.

14 What are the advantages of DNC?

15 a) Explain MICLASS system of GT.

b) Compare generative and retrieval type of process planning systems.

16 a) Define : Payload, accuracy, repeatability, reach and work envelope with reference to robot.

b) Discuss the working principle of Coordinate Measuring Machine (CMM).

17 Write short notes on :

a) Industrial Robots
b) Artificial intelligence
c) Constructive solid geometry

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