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BME-063

DIPLOMA IN MECHANICAL ENGINEERING (DME)

01439

Term-End Examination

December, 2011

BME-063 : CAD / CAM

Time : 2 hours *Maximum Marks : 70*

Note : *Answer **any five** questions. All questions carry **equal** marks.*

1. (a) What is Geometric Modelling ? Explain a typical CAD Model with suitable block diagram. **7**

(b) List out the various applications of CAD and CAM. **7**

2. (a) Explain the working of CRT display device with suitable diagram. **7**

(b) What are the basic techniques for generation of graphic image ? Explain with suitable examples. **7**

3. (a) What are the input devices used in CAD system ? Explain. **7**

(b) Why are the CAD/CAM data exchange standards required ? Explain ? **7**

4. (a) What are the basic components of CAM ? Explain Implementation of typical CAM process on a CAD/CAM system with suitable block diagram. 7

(b) What is CNC ? Explain the working of CNC system with suitable block diagram. 7

5. (a) What are the types of control system used to control the motion in NC system ? Explain. 7

(b) What are the types of co-ordinate system used in CNC machine tools ? Explain with suitable examples. 7

6. (a) What is servo Mechanism ? Explain working of servo Mechanism in CNC machine with suitable sketch. 7

(b) List out the various advantages and disadvantages of CNC machines. 7

7. (a) What is Flexible Manufacturing System (FMS) ? Explain the working of FMS with neat sketch. 7

(b) List out the advantages and disadvantages of FMS. 7

8. Write short notes of the following : $4 \times 3\frac{1}{2} = 14$

(a) Liquid Crystal Display

(b) Colour CRT Monitor

(c) Automated Guided Vechicle System

(d) Robot control system