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BME-063

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DIPLOMA IN MECHANICAL ENGINEERING (DME)

Term-End Examination

December, 2013

BME-063 : CAD / CAM

Time : 2 Hours *Maximum Marks : 70*

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

1. (a) Explain the three basic components of computer graphic display systems. 7
   (b) With neat sketch compare 2-D models with 3 - D models. 7

2. (a) Write the principle and working of a CRT. 7
   (b) What is rendering ? Explain the three stages of rendering an image. 7

3. (a) What is roster scan technique ? How a line under this technique appear on the monitor ? 7
   (b) Explain the function of a frame buffer. 7

4. (a) Describe how the extrusion principle is applied in CAD. 7
   (b) With illustrations explain the revolution and sweep features in CAD. 7

5. (a) Explain the fundamental concepts of CAM. 7
   (b) With an example, explain the hierarchial database structure. 7

6. (a) Briefly explain the principle of operation of numerical control machine tool using a sketch. 7

(b) Discuss the advantages of CAM. 7

7. (a) Sketch and explain the torque-speed characteristics of a spindle drive. 7

(b) How is the turret of a CNC lathe indexed ? Explain. 7

8. (a) Compare FMS with other types of manufacturing approach. 7

(b) Write a note on role of robotic devices in FMS. 7