DIPLOMA IN MECHANICAL ENGINEERING (DME)

00645

Term-End Examination

June, 2012

BME-063 : CAD / CAM

Time : 2 Hours   Maximum Marks : 70

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

1. (a) What is Visualization of CAD model ? How   7
         do you display the model ? Explain with
         suitable examples.

    (b) Explain the differences between mouse and   7
         track ball. What are the limitations of a light
         pen as a locating device ?

2. (a) Describe the function of frame buffer.   7
         Differentiate between random and raster
         scan display.

    (b) What is solid modelling ? Explain the various 7
         methods of solid modelling with suitable
         examples.

3. (a) How flickering of the image on a CRT   7
         monitor can be avoided ? Why do you think
         resolution is related to the size of the point
         that emits light ? Discuss in brief.

(b) Why 3D modelling is important ? Explain the limitation of wire frame modelling over solid modelling.   7

4. (a) What is Management Information System (MIS) ? Explain the concept of MIS with suitable sketch.   7

   (b) What is Decision Support Systems (DSS) ? Explain with suitable diagram.   7

5. (a) How is a CNC control system organised ? Briefly explain the function of any three elements in the control.   7

   (b) List out the various application of Decision Support Systems (DSS).   7

6. (a) What are the various tool monitoring systems available in an FMS ? Explain any one system in detail.   7

   (b) What are the factors that need to be considered while selecting a robot as a material handing equipment ?   7

7. (a) What are the different types of system layers used in FMS ? Explain with applications.   7

   (b) What are the various types of tool magazines used in CNC machine tools ? Give their relative merits.   7

8. Write short notes on the following : 4x3.5=14

   (a) Geometric Modelling

   (b) CAD/CAM data base

   (c) FMS Layout

   (d) Robot Programming and Interface.

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