

**DIPLOMA IN MECHANICAL ENGINEERING  
(DME)**

**Term-End Examination,**

**December 2019**

**BME-063 : CAD / CAM**

*Time : 2 Hours]*

*[Maximum Marks : 70*

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*Note : (i) Answer any five questions.*

*(ii) All questions carry equal marks.*

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1. a) Explain the components of a CAD system with the help of a block diagram. 7  
b) What are the basic techniques for generation of graphic image? Explain with suitable examples. 7
2. a) What is a wire frame model? Enlist the limitations of wire frame model. 7  
b) Discuss the different types of display devices used in CAD. 7
3. a) Why are the CAD/CAM data exchange standards required? Explain with suitable examples. 7  
b) What is solid modelling? Explain the various methods of solid modeling with suitable examples. 7
4. a) Why 3D modelling is important? Explain solid modelling with suitable examples. 7

(2)

- b) Explain the different elements present in CNC machine tool system. 7
5. a) Explain the basic co-ordinate system used in CNC systems. 7
- b) Discuss briefly how computer aided manufacturing differs from conventional manufacturing. 7
6. a) What is adaptive control? How is it important in robots? 7
- b) Explain the different types of FMS layouts. 7
7. Explain the configuration of commercially available industrial robot with a neat sketch. Also describe the advantages, applications and limitations of industrial robots. 14
8. Write short notes on the following : 4×3.5=14
- a) Decision support systems
- b) Management information systems
- c) Computerized inventory control
- d) CAD/CAM data base

