

M.Tech. Mechanical Engineering Design (CBCS Pattern) Semester-I
MED14 - Computer Aided Mechanical Design

P. Pages : 1

Time : Three Hours



GUG/W/24/14189

Max. Marks : 70

- Notes :
1. All questions carry equal marks.
 2. Solve **any five** questions.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Assume suitable data wherever necessary.
 5. Diagrams and Chemical equation should be given wherever necessary.
 6. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Develop the DDA algorithm to draw a line with slope such that $-\infty < m < -1$. 7
b) What are the various cursor control devices that can be employed in CAD systems? 7
2. a) Differentiate between stroke writing and raster scan techniques. 7
b) Explain with examples role of CAD in following areas of design. 7
i) Geometric modeling ii) Engineering Analysis
3. a) What is direct view storage tube? 7
b) What are the various hardware components in the CAD system? 7
4. a) Elaborate the concept of generation of several alternate design an evaluation in CAD. 7
b) What are the features of GKS? 7
5. a) What are the two basic techniques used in current computer graphics terminals for generating image on the CRT screen? 7
b) What do you mean by Geometric modeling? 7
6. a) What is Bezier curve? How it is defined and Where it is used? 7
b) Explain Bresenham's algorithm for generation of line. 7
7. Explain: 14
i) B spline curve
ii) Mathematical representation of Hermite cubic.
8. Write short note on: 14
i) Stroke writing ii) Raster scan
