

# Set No. 1

IV B.Tech I Semester Supplementary Examinations, February - 2019

## CAD/CAM

**(Common to Mechanical Engineering and Auto Mobile Engineering)**

**Time: 3 hours****Max. Marks: 75**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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|---|----|---|------|
| 1 | a) | Write about the various hard copy devices and different types of input devices used in CAD System. Explain briefly.                                 | [10] |
|   | b) | Write the advantages to be gained by the adoption of CAD/CAM system into the industry.  | [5]  |
| 2 | a) | What is meant by Data base in CAD? Explain different types of Data base structures used in CAD-Software.  | [8]  |
|   | b) | Write short notes on (i) stroke writing (ii) Raster Scan with neat sketches.  | [7]  |
| 3 | a) | Explain the construction of geometric models.   | [8]  |
|   | b) | What are entities? Explain the methods of defining lines, arcs and Circles in wire frame modeling.  | [7]  |
| 4 | a) | Explain the basic geometric commands.   | [7]  |
|   | b) | Describe the concepts of layers and dimensioning in detail.   | [8]  |
| 5 | a) | Write the differences between manual part programming and Computer Aided Part Programming.  | [8]  |
|   | b) | Explain the different types of NC words used in part programming technique.   | [7]  |
| 6 | a) | By using GT, what types of benefits are associated in the functional areas<br>(i) Production control<br>(ii) Manufacturing<br>(iii) Quality control | [9]  |
|   | b) | Explain the Generative type Computer Aided Process Planning with neat diagram.  | [6]  |
| 7 | a) | Explain the computers in quality control.   | [7]  |
|   | b) | Explain general types of non-contact Optical inspection methods.  | [8]  |
| 8 | a) | Describe about the concept of CIM with the aid of block diagram.  | [8]  |
|   | b) | Explain various types of data files used in CIM systems.  | [7]  |