Code No: **RT41032**   **R13**   Set No. 1

IV B.Tech I Semester Supplementary Examinations, February - 2019
CAD/CAM
(Common to Automobile Engineering and Mechanical Engineering)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1. a) Give a brief note on storage devices.   [3]
    b) Enumerate the basic geometric commands.   [3]
    c) What is Adaptive control?   [4]
    d) Compare generative type and retrieval type CAPP system.   [4]
    e) List out the contact and non-contact type inspection methods in quality control. [4]
    f) Give the benefits of computer integrated manufacturing system.   [4]

PART–B *(3x16 = 48 Marks)*

2. a) Explain about CAD/CAM hardware.   [8]
    b) Describe an algorithm for the removal of hidden lines.   [8]

3. a) Discuss the use of various editing commands available in a CAD package   [8]
    b) Develop a general form of Bezier curve for the control points given by (0, 2), (2, 3), (3, 2) and (3, 0).   [8]

4. a) Discuss the procedure for preparing a NC part program with an example.   [8]
    b) Briefly describe the CNC machining centers. With the help of a diagram differentiate between the operations of canned cycles G81 and G83.   [8]

5. a) Compare a process type layout and group technology layout for batch production of a simple component.   [8]
    b) Discuss Product flow analysis.   [8]

6. a) Discuss major non-contact inspection methods.   [8]
    b) Enumerate any eight uses of computers in quality control.   [8]

7. a) What are the different types of manufacturing systems? Explain with the help of block diagrams.   [8]
    b) What do you understand by the term CIM? State and elaborate on the advantages of CIM in a manufacturing unit.   [8]