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R-15

Code: 5G562

III B.Tech. II Semester Supplementary Examinations May / June 2024

CAD/CAM

(Mechanical Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

UNIT-I

1. Elaborate Mainframe based CAD/CAM system with a neat sketch

OR

2. Describe the working of any five of the input devices and any two of the output devices used in CAD systems

UNIT-II

3. Briefly explain the concept of various coordinate systems required for geometric display systems. Give examples.

OR

4. What do you understand by B-rep and C-rep approaches of solid modeling? Explain their relative merits and demerits.

UNIT-III

5. a) Distinguish between Numerical Control and Computer Numerical Control.

b) Give a brief description of the CNC machining centre.

OR

6. a) List out the basic elements of Numerical Control system

b) Discuss the salient features of machining centers.

UNIT-IV

7. a) Describe machine cell design in group technology

b) Compare a process type layout and group technology layout for batch production of a simple component.

OR

8. a) What are part families? What are the methods used for grouping of parts?

b) Explain the part design and manufacturing attributes giving examples.

UNIT-V

9. a) Describe CIM benefits

b) Compare MRP with MRP I

OR

10. Explain the application and advantages of integration of CAQC with CAD/CAM systems.
