



B.E. DEGREE END SEMESTER EXAMINATIONS, MAY 2012

Manufacturing Engineering
V Semester (Regulation – R2008)

MF 9304 COMPUTER AIDED DESIGN

Duration: 3 hrs

Max. Marks: 100

Answer ALL Questions:

Part – A (10 x 2 = 20 Marks)

1. List any four output devices in a CAD/CAM system.
2. How networking plays an important role in CAD?
3. By what are all the methods, hidden lines are removed?
4. Write down the merits of analytical solid modeling.
5. List various wireframe entities.
6. How solid modelers are categorized?
7. What is the need for product data exchange?
8. List the characteristics of STEP files.
9. List the common errors in FEM.
10. Define essential boundary conditions.

Part – B (5 x 16 = 80 Marks)

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| 11. a. i) Explain two dimensional transformations in detail. | 10 |
| ii) Discuss perspective projection. | 6 |
| 12. a. Write short notes on | |
| i) Mainframe Based systems, ii) Work station Based systems | 16 |
| Or | |
| b. Describe in detail about the product cycle with block diagram. | 16 |
| 13. a. Discuss the different surface entities with suitable sketch. | 16 |

Or

- b. i) Discuss constructive solid geometry methodology, characteristics and its applications. 10
- ii) Describe the basic elements of sweep representation. 6

14. a. i) Explain structure and methodology of Initial Graphics Exchange Specifications. Also list their limitations. 16

Or

- b. i) Compare Graphical Kernel System and Programmers Hierarchical Interface for Graphics. 8
- ii) Explain the structure of Drawing Exchange Format. 8

15. a. i) Explain the criteria based on which nodal points are selected. 8
- ii) Describe the procedure adopted in finite element methods. 8

Or

- b. i) Explain the importance of convergence and connectivity in FEM. 10
- ii) Classify element types. 6