

[Total No. of Questions: 08]
Uni. Roll No.

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M. Tech.
Computer Aided Design Methods
Subject Code: CE-507
Paper ID: E0854

Time Allowed: 03 Hours

Max. Marks: 100

Note: Attempt any five questions.

- Q1. a) What is CAD and how it is changing practices of Structural Engineering? 10
b) Write down the requirements of a Structural Engineer, in terms of Computer hardware, associated peripherals and software to carry out his professional work effectively and efficiently. 10
- Q2. Explain Translation, Rotation, Mirror, and Scaling in 2D with the help of examples and neat sketches. 20
- Q3. What is the importance of “Hidden surface elimination”? Explain an algorithm in detail which can achieve this. 20
- Q4. a) What is the difference between raster graphics and vector graphics. Discuss their application and suitability. 5
b) Name five input / output devices and discuss briefly their advantages and disadvantages. 15
- Q5. Write short note on following: 20
a) Clipping and Windowing
b) Segmentation Geometric Modelling
c) Shading
d) Scan conversion
- Q6. How stiffness matrix is assembled in case of analysis of a continuous beam by stiffness method. Use pseudo code or programming language of your choice to develop program for the same. 20
- Q7. Write a computer program for the design isolated RCC footing, in computer language of your choice or using pseudo code, after developing flow chart for it. 20
- Q8. What do you understand by Databases Management System? Discuss structure, relative merits and demerits of various type of Data Base Management Systems. 20
