



Printed Pages : 3

CE – 024

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 0035

Roll No.

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B. Tech.

(SEM. VIII) EXAMINATION, 2006-07

COMPUTER AIDED DESIGN

Time : 3 Hours]

[Total Marks : 100

Note : Attempt all questions.

1. Attempt any two parts of the following: 10×2=20

- (a) Describe the typical requirement of different types of memory of modern CAD workstation. How does and why the “CACHE” memory affect the performance of CAD workstation ?
- (b) For a typical highway bridge design project, what could be different advantages of CAD software in comparison to the conventional design method?
- (c) Why in typical structural Civil Engineering CAD software, a good printing and estimating and costing modules must be available? What features must be available in such modules?

2. Attempt any **two** parts of the following : **10×2=20**

- (a) How is the concept of modular programming different from the procedural programming? Name the different languages that support each type of programming paradigm.
- (b) What kind of different debugging tools are available and how could they be used to debug typical CAD software?
- (c) List out and describe the functionality of different modules in typical commercial complex CAD software.

3. Attempt any **two** parts of the following : **10×2=20**

- (a) Describe any one Civil Engineering design problem requiring iterative design process, which could be solved with the help of CAD software.
- (b) Explain in detail and with an example, how the BIS codes or any other codes are implemented in any Civil Engineering Design Software.
- (c) Explain any one Civil Engineering Design software requiring database management system. How does the DBMS help in such design software ?

4. Attempt any **two** parts of the following : **10×2=20**

- (a) Describe any one of the modern software for the design of framed structures. What are the typical features of such software?
- (b) Explain, how can computer aided software could be utilized for environmental impact analysis of large civil engineering projects.
- (c) Draw and explain the flow chart for the design of column foundation.

5. Attempt any **two** parts of the following : **10×2=20**

- (a) What are the different Civil Engineering fields in which artificial neural networks could be utilized for the analysis of the problem? Explain any one such application in detail.
 - (b) Write short notes on knowledge based expert system.
 - (c) Describe, how an expert system can help in site selection of large dam projects.
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