

No. of Printed Pages : 03

Roll No.

AA564

M. Tech. EXAMINATION, May 2019

(First Semester)

(B. Scheme) (Re-appear)

CE(SE)

CES509

COMPUTER AIDED DESIGN METHOD

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(2-21/16) M-AA564

P.T.O.

Unit I

1. Define CAD also give architecture and capability of CAD in Civil Engineering.
2. What are important output and input device now-a-days used in CAS ?

Unit II

3. Drive the transformation matrices of translation, shearing and rotation in 3-D. Drive transformation matrix to scale a unit cube twice uniformly wrt origin.
4. Define Bezier surface and B-spline surface-differentiate between Bezier spline curve and B-spline curve.

Unit III

5. What is FEM ? Explain different steps of finite element modeling. Also write down the elemental stiffness matrix for linear solution.

6. Describe any *one* of the modern software for the design of framed structure. What are the typical features of such software ?

Unit IV

7. Draw and explain the flow chart for design of column foundation.
8. Draw a flow chart for design and detailing of RCC beam and write the steps also.