

G 1182

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Reg. No.....

Name.....

**B.TECH. DEGREE EXAMINATION, MAY 2016**

**Eighth Semester**

Branch : Civil Engineering

FINITE ELEMENT ANALYSIS (C)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.*

1. Explain the historical development of finite element method and state its significance.

(20 marks)

*Or*

2. (a) Explain Gauss Elimination solution of equations.

(10 marks)

- (b) Explain storage schemes and solutions in finite element analysis.

(10 marks)

- 3 State and explain the different energy principles used for finite element analysis.

(20 marks)

*Or*

4. (a) State and explain the principle of virtual displacement.

(10 marks)

- (b) Distinguish between potential energy method and Rayleigh-Ritz method.

(10 marks)

5. (a) Compare CO and CI finite element with example.

(10 marks)

- (b) Explain the effect of using non-confirming elements in an assemblage.

(10 marks)

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