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Roll No .....

**CE-5004 (CBGS)****B.E. V Semester**

Examination, November 2018

**Choice Based Grading System (CBGS)  
Construction Material and Techniques***Time : Three Hours**Maximum Marks : 70*

- Note:* i) Answer any five questions.  
 ii) All questions carry equal marks.  
 iii) Give neat sketches to support your answer if necessary.

1. a) What are the desirable qualities of good building stones? Discuss them briefly. 7  
 b) Classify various types of bricks, enumerating the characteristics of each type. 7
2. a) What are fly ash bricks? How they are manufactured? Write its differences with traditional red bricks? 7  
 b) Describe the process of air seasoning of timber. What are its advantages and disadvantages? 7
3. Write notes on: 14
  - a) Non erodible mud plinth
  - b) Stabilized mud block
  - c) Agricultural waste based building materials
  - d) Fascia materials
  - e) Flooring tiles
  - f) D.P.C. materials

4. a) Explain the different measures like : compacting soil, sheet piling, grouting and chemical treatment are helpful in increasing the bearing capacity of soil. 7  
 b) Explain the following: 7
  - i) Spread foundation
  - ii) Grillage foundation
  - iii) Well foundation
5. a) What are the precautions to be taken to grant safety to foundations on black cotton soil? 7  
 b) Discuss the common defects in construction and their effect on strength and performance of walls. 7
6. a) Write notes on : 7
  - i) Precast stone masonry block
  - ii) Hollow concrete block
  - iii) Load bearing walls
 b) What are the Requirements of good stairs? Draw a neat sketch of a spiral stair and mention its important features. 7
7. a) Discuss the provision of doors and windows in a structure with respect to location, purpose and size. 7  
 b) Show the details of joints at the ends of a king post and queen post. 7
8. Explain the terms: 14
  - a) Air conditioning
  - b) Acoustics of a hall
  - c) Fire protection of a building
  - d) False ceiling
  - e) Pitched roof
  - f) Thermal insulation

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