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Total number of printed pages – 2

B. Tech  
PCCE 4203

## Special Examination – 2012

### BUILDING MATERIALS AND BUILDING CONSTRUCTION

Full Marks – 70

Time – 3 Hours

Answer Question No. 1 which is compulsory and any **five** from the rest.

The figures in the right-hand margin indicate marks.

1. Answer the following questions : 2 × 10
- (a) State different types of brick burning process.
- (b) State four natural stones available in India.
- (c) What are the compounds present in ordinary portland cement ? State the percentages of each one.
- (d) Workability of concrete is associated with two important characteristics. What are these ?
- (e) What are the various types of admixtures used in concrete operation ?
- (f) State four different types of stone dressing.
- (g) What is the purpose of provision of DPC ?
- (h) State four types of surface flooring.
- (i) What are the various steps involved in the preparation of bricks ?
- (j) State four components of a stair case.

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2. Explain geological classification of stones. State the characteristics of a good stone. What do you mean by dressing of stones ? 3+4+3
3. Describe the preparation procedure of cement mortar. State various properties of cement mortar. Explain workability of concrete. 4+3+3
4. State the constituents of good brick-earth. What are the properties of first class bricks ? Describe the classification of bricks. 3+4+3
5. Explain the special features of a RCC stair. Show, with neat sketches, three different types of stairs commonly used in a building. 4+6
6. State the various sources of dampness in a building and the effects of dampness. How the dampness can be prevented ? 6+4
7. Explain different types of joints used in brick work. Draw the typical sketches to distinguish each one. What do you mean by reinforced brick work ? 3+4+3
8. Write short notes on any **four** of the following : 2.5 × 4
  - (a) stone flooring
  - (b) kiln burning
  - (c) water cement ratio
  - (d) pile foundation
  - (e) stone lining.

