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Total Number of Pages : 01

B.Tech
PCCE4203

3rd Semester Back Examination 2017-18
BUILDING MATERIALS AND BUILDING CONSTRUCTION
BRANCH : CIVIL
Time : 3 Hours
Max Marks : 70
Q.CODE : B1218

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

- Q1 Answer the following questions: (2 x 10)**
- a) What is the purpose of provision of *frog* in a brick?
 - b) State the chemical composition of cement.
 - c) Differentiate between *segregation* and *bleeding*.
 - d) State the chemical constituents of cement.
 - e) State the various materials used for damp proofing.
 - f) What do you mean by pitch of a stair? What is its limit?
 - g) In what situation, pile foundation is recommended?
 - h) Show the figure of a dog legged stair.
 - i) Explain the term, "*dado*" with reference to plastering.
 - j) State the different methods adopted for brick manufacturing.
- Q2**
- a) Describe any suitable method of manufacture of cement. (7)
 - b) What are the advantages of a cavity wall? (3)
- Q3**
- a) Explain the properties of a good mortar. (5)
 - b) Draw a typical sketch showing the details of a stair. Explain different terms used in a stair. (5)
- Q4**
- a) What are the causes and effects of dampness in buildings? State the materials and methods used for prevention of dampness. (5)
 - b) Explain the characteristics of a English bond brick joint showing its elevation. (5)
- Q5**
- a) Discuss various causes of cracks in building? How these can be overcome? (5)
 - b) Explain various types of brick masonry. (5)
- Q6**
- a) What are the common defects of plastering? Explain the remedies in brief. (5)
 - b) Discuss the construction of a terrazzo flooring. (5)
- Q7**
- a) Explain the functions of a foundation and its essential requirements? (5)
 - b) Classify the types of piles based on (5)
 - (i) function and (ii) materials and composition.
- Q8 Explain the following in brief (Any Two) (5x2)**
- a) Damp proof course
 - b) Reinforced brick work
 - c) Mix design
 - d) Spread footing