ET-204(B)

B.Tech. Civil (Construction Management)/ B.Tech. Civil (Water Resources Engineering) / BTCLEVI

Term-End Examination

June, 2014

00235

ET-204(B) : ENGINEERING MATERIALS

Time : 3 hours   *Maximum Marks : 70*

Note : *Attempt any* **five** *questions. All questions carry equal marks.*

1. (a) Explain the classification and uses of lime as per IS : 712-1973.   7

    (b) What do you mean by heat of hydration ? Describe the development of strength of pure compounds of cement with time.   7

2. (a) Describe the characteristics of bitumen which could be used successfully in road surfacing.   7

    (b) Describe the functioning and uses of bituminous emulsion.   7

3. (a) Explain the properties and fields of application of Tech Seal as sealing agent. 7

(b) Describe the three important fields of application of a ready-to-use adhesive for bonding of tiles, marbles, stones, etc. 7

4. (a) What do you mean by grades of concrete ? Represent various grades of concrete in a tabular form. 7

(b) Define foamed concrete. Explain its properties and uses. 7

5. (a) Explain the qualitative requirements of floors. 7

(b) Describe the advantages of integral water-proofing compounds. 7

6. (a) Discuss the advantages and disadvantages of using plastic sections over wood. 7

(b) Describe the various accessories used in Cable Trunking and the purpose of each. 7

7. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$

(a) Bogue's compound

(b) Structural components of a floor

(c) Damp proofing

(d) Composition of plastics

8. Differentiate between the following : $4 \times 3\frac{1}{2} = 14$

   (a) Bitumen and Tar

   (b) Bonding and Sealing Agent

   (c) Cement and Lime

   (d) Cable Trunking and Conduit Wiring

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