

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

**Term-End Examination
June, 2013**

ET-204(B) : ENGINEERING MATERIALS

Time : 3 hours

Maximum Marks : 70

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

1. (a) Describe the Bogue's compounds alongwith their chemical formula and percentage composition. 7
(b) Explain the classification of cementing materials. 7
2. (a) Discuss the various tests normally conducted to determine the suitability of bitumen for roadwork. 7
(b) What do you understand by Tar ? Explain its uses in roadwork. 7
3. (a) Define Bonding agents. Describe the fields of application of Universal Bonding Agent. 7
(b) Explain properties, fields of application and application procedure of polymer modified mortar for concrete repairs. 7

4. (a) Draw the flow chart of concrete making and explain its various components. 7
(b) Explain the advantages of Epoxy Flooring. 7
5. (a) Discuss the classification of superplasticizers based on their chemical composition. 7
(b) Discuss the special materials used in plastering. 7
6. (a) Explain the composition of Fibre Reinforced Plastics and role of its constituents. 7
(b) Describe the methods available for joining PVC conduits. 7
7. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$
(a) Bituminous Emulsions
(b) Fibre Reinforced Concrete
(c) Cement Concrete Floor Topping
(d) Cable Trunking
8. Differentiate between the following : $4 \times 3\frac{1}{2} = 14$
(a) Bitumen and Tar
(b) Voltage booster and Voltage Regulator
(c) Thermo setting and Thermo Plastic
(d) Damp Proofing and Water Proofing
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