

00241 B.Tech. Civil (Construction Management) /
B.Tech. Civil (Water Resources Engineering)
BTCLEVI

Term-End Examination
December, 2013

ET-204(B) : ENGINEERING MATERIALS

Time : 3 hours

Maximum Marks : 70

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

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1. (a) Describe the raw materials used for the manufacture of cement alongwith their percentages in a tabular form. 7
 - (b) Briefly describe the various types of cements. 7
 2. (a) Explain the classification and uses of various types of road tars. 7
 - (b) Describe the important steps in the design of a bituminous mix for road work by Marshall method. 7
 3. (a) Discuss the properties and fields of application of universal bonding agent. 7
 - (b) Describe the important properties of a sealing agent like MC-Fix-ST. 7

4. (a) Draw a typical flow chart of a concrete making operation. 7
(b) Define fibre reinforced concrete. Explain its advantages and uses. 7
5. (a) Describe the qualities of cement concrete floor topping. 7
(b) Explain the important purposes for which admixtures are used in concrete. 7
6. (a) Explain the commonly used wall papers and describe the fixing procedure of these papers. 7
(b) Describe the composition of Fibre Glass Reinforced Plastics, and the role of its constituents. 7
7. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$
(a) Gypsum Plaster
(b) Water Proofing
(c) Cable Trunking
(d) Sandwich Panels
8. Differentiate between the following : $4 \times 3\frac{1}{2} = 14$
(a) Quick and Hydraulic lime
(b) Super plasticizers and plasticizers
(c) Rock Asphalt and Lake Asphalt
(d) Voltage booster and voltage regulator.
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