

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

Term-End Examination

00003

June, 2018

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.
(b) Describe the Bogue's compounds along with their chemical formula and percentage. 7+7
2. (a) Enumerate important steps in the design of a bituminous mix by the Marshall method for roadwork.
(b) What do you understand by Tar ? Explain its uses in roadwork. 7+7

3. (a) What do you understand by the term bonding agent ? Describe important properties of a sealing agent.
- (b) Explain different structural components of a floor. 7+7
4. (a) What do you mean by W/C ratio ? Explain its significance.
- (b) Explain the advantages of epoxy flooring. 7+7
5. (a) Discuss the classification of "Super plasticizers" based on their chemical composition.
- (b) Explain the application of "Integral Water Proofing Compounds". 7+7
6. (a) What do you understand by Cable Trunking ? Explain its advantages.
- (b) Discuss the conditions under which plywood can be used economically. 7+7
7. Write short notes on the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Flow chart of concrete making
- (b) Damp proofing
- (c) Rudiments of cement
- (d) Terrazzo flooring

8. Differentiate between the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Quick lime and Fat lime
 - (b) Thermo-setting and Thermo-plastic
 - (c) Voltage booster and Voltage regulator
 - (d) Ordinary Portland cement and Rapid Hardening cement
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