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Roll No. :

320355(20)

B. E. (Third Semester) Examination, April-May 2021

(New Scheme)

(Civil Engg. Branch)

BUILDING MATERIALS

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : All questions are to be attempted. Part (a) of each unit is compulsory carrying of 02 marks.

Attempt any two parts of each unit out of (b), (c) & (d) which carries 07 marks each.

Unit-I

1. (a) What is ferrocement? 2
- (b) Distinguish between : 7

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- (i) Rapid hardening cement Vs. Low heat cement
(ii) High alumina cement and super sulphated cement
- (c) Write short notes on : (Attempt any **two**) 7
- (i) Flakiness Index
(ii) Elongation Index
(iii) Impact factor test
- (d) Distinguish between setting and hardening of cement.
Name the compounds which are responsible for setting and hardening. 7

Unit-II

2. (a) Flexural strength of concrete is about of compressive strength. 2
- (b) List all the factors that influence the properties of concrete in the plastic stage and the hardened stage.
Explain any two of the properties in detail. 7
- (c) What is Workability? What are the factors affecting it? 7
- (d) What is admixture? Explain its types in detail. 7

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Unit-III

3. (a) What are the ceramic materials? 2
- (b) Describe in detail properties of ceramics. 7
- (c) Enumerate ceramic building products and describe briefly ceramic tiles. 7
- (d) Write short notes on : 7
- (i) Porcelain tile
(ii) Glazing of tiles

Unit-IV

4. (a) What is a knot? 2
- (b) What are the structural properties of timber? 7
- (c) What is artificial seasoning? State the objectives of artificial seasoning. 7
- (d) List various types of timber grading and describe strength classes of a timber. 7

Unit-V

5. (a) What is the covering capacity of Acrylic Plastic emulsion in two coats? 2

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(c.b)

- (d) What are distempers? Describe the application procedure of soft distempers. 7
- (c) What are the functions of glass in buildings? 7
- (d) What are Plastics? What are the commonly used plastics? 7