

320355(20)

**B. E. (Third Semester) Examination,
April-May 2020**

(New Scheme)

(Civil Engg. Branch)

BUILDING MATERIALS

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Attempt part (a) of all the question are carrying 2 marks. Attempt any two parts of all questions from (b), (c) and (d) part carrying 7 marks.

Unit-I

1. (a) What is the purpose of cement?
- (b) Write two tests on properties of cement with their importance.

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- (c) What are the mechanical tests recommended for coarse aggregates? Explain any two in detail including their importance.
- (d) Describe in detail about process of hydration of cement and hydration products.
2. (a) What is the purpose of curing concrete?
- (b) What are the factors affecting durability of concrete?
- (c) Discuss the fresh and hardened state properties of concrete.
- (d) Describe in detail about admixtures used in concrete.
3. (a) What are ceramic materials?
- (b) Describe in detail about types of ceramic materials used in day to day life.
- (c) What are the properties of ceramics? Describe in detail.
- (d) Explain the manufacturing process of ceramics.
4. (a) What do you understand by preservation of timber?
- (b) What is the purpose of using low cost building materials?

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- (c) What are the characteristics of good timber?
- (d) Write notes on veneer and plywood.
5. (a) What are the uses of plastic and PVC?
- (b) Write the manufacturing process of float glass.
- (c) Discuss composite materials along with their types and uses in construction industry.
- (d) Write notes on paints and vernishes mentioning their composition and uses.