

**320654(20)**

**B. E. (Sixth Semester) Examination, April–May 2020**

**(New Scheme)**

**(Civil Engg. Branch)**

**CONCRETE TECHNOLOGY**

***Time Allowed : Three hours***

***Maximum Marks : 80***

***Minimum Pass Marks : 28***

***Note : Part (a) is compulsory and solve any two parts from (b), (c) and (d) in each question.***

**Unit-I**

1. (a) Give classification of cement. 2
- (b) What are the role of gypsum and calcium chloride in cement? 7
- (c) Explain in detail hydration of cement. 7

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- (d) How aggregates are classified on the basis of size? 7

### Unit-II

2. (a) What do you understand by admixtures? 2  
(b) Write short note on - ground granulated blast, furnace slag (GGBFS). 7  
(c) What are the effect of mineral admixtures on fresh concrete and hardened concrete. 7  
(d) Explain in detail the properties of fresh concrete. 7

### Unit-III

3. (a) What do you understand by hardened concrete? 2  
(b) What do you understand by compressive strength of concrete. 7  
(c) Discuss the factors affection the variability of concrete and strength. 7  
(d) Describe the relation between durability and permeability of concrete. 7

### Unit-IV

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4. (a) What do you understand by concrete mix design? 2  
(b) What are the various factors to be considered in proportion of concrete mix design. 7  
(c) Explain British method of mix design. 7  
(d) Explain "Rebound Hammer Test" for measuring the surface hardness of concrete. What are the limitations of this test. 7

### Unit-V

5. (a) What do you understand by special concrete? 2  
(b) Explain the process of making light weight concrete. 7  
(c) Explain uses of foam concrete and gas concrete. 7  
(d) What are the functors affecting properties of FRC. 7