

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]

2

CE-606

MAY-24-0490

CE-606 (Concrete Technology)

B.Tech-6th (CBCS)

**SECTION-D**

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note: Attempt five questions in all, selecting one question each from Section A, B, C and D. Section E is compulsory.

**SECTION-A**

- I. Discuss the properties of high density concrete and its advantages. (10)
- II. Briefly discuss the slump test to be carried out on fresh concrete. Discuss the suitability of concrete works based on slump value. (10)

**SECTION-B**

- III. Discuss the various tests to be conducted on high performance concrete. Also, discuss the various applications of high performance concrete. (10)
- IV. What are admixtures? Discuss the effect of admixtures on cement concrete with examples. (10)

**SECTION-C**

- V. Define ready mix concrete. Discuss the process to prepare ready mix concrete. Explain the details of transit mixer. (10)
- VI. Discuss the requirement of rehabilitation of structures due to concrete deterioration. How does ferro cement is helpful in such repairs? (10)

VII. Explain briefly the process of nondestructive testing of concrete using ultrasonic pulse velocity test. (10)

VIII. Discuss the carbonation of concrete. Also, discuss the detail procedure for carrying out carbonation test of concrete. (10)

**SECTION-E (Compulsory)**

- IX. a) Discuss the constituents of concrete.  
b) Define Nominal mix concrete.  
c) List the different tests to be carried on fresh concrete for suitability.  
d) Explain workability of concrete.  
e) Discuss the factors affecting durability of concrete.  
f) Explain creep of concrete.  
g) Discuss the uses of plasticizers in concrete.  
h) Discuss the grading of coarse aggregates.  
i) Discuss the requirements of ready mix concrete.  
j) Discuss the advantages of polymer concrete. (10×2=20)