

Roll No. ....

Total Pages : 03

BT-5/D-18

35157

CONCRETE TECHNOLOGY

CE-311N

Time : Three Hours]

[Maximum Marks : 75

**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

### Unit I

1. (a) What are the advantages of concrete ? Explain. List the various grades of concrete. What is the significance of grades ? 8
- (b) List the various physical tests to be performed on cement. Explain any *one* in detail. 7
2. (a) Write a short note on bulking and grading of fine aggregates. 7
- (b) List the various properties of the aggregates used for the concrete. Explain. 8

### Unit II

3. (a) List the various factors affecting the workability of concrete. Explain any *two* in detail. 7
- (b) Define workability of concrete. List various methods and explain any *one*. 8
4. Explain in brief : Batching, Mixing, Transportation, compaction and curing of concrete. 3×5=15

### Unit III

5. What do you understand by Non-destructive testing of concrete ? Explain, why these tests are performed ? List the various test performed on concrete. Explain any *one* in detail. http://www.kuonline.in 15
6. (a) Explain in detail the corrosion of embedded steel in concrete. 8
- (b) List the various causes of the concrete deterioration. How will you prevent the deterioration of concrete? 7

### Unit IV

7. (a) How will you evaluate the cracks in concrete ? List the various techniques for repair of cracks. 8

- (b) Discuss the various techniques for underwater repair of concrete. 7

8. Write short notes on the following :

- (a) Fibre R/F concrete  
(b) Shotcrete  
(c) Polymer concrete. 5×3=15