Code. No: 11470/CBCS/S

# FACULTY OF ENGINEERING

B.E (Civil) V-Semester (CBCS) (Suppl.) Examination, May / June 2019

Subject : Concrete Technology

Time: 3 Hours Max. Marks: 70

Note : Answer all questions from part – A and any five questions from Part-B

PART– A (10 x 2 = 20 Marks)

1. Explain the initial setting time of cement?
2. Define workability of the concrete
3. Explain the Abrahamƒs law
4. What do you understand from segregation and bleeding of concrete
5. What is field strength and target strength
6. What is shrinkage of concrete?
7. Define ready mix concrete?
8. Why admixtures are used in concrete
9. What is polymer concrete?
10. Give any three advantages of fiber reinforced concrete?

PART – B (5 x 10 = 50 Marks)

11. a) Discuss the major and minor compounds of cement and their reactions
    b) Explain in detail the physical properties of fine ad coarse aggregates needed for a good concrete

12 a) Discuss what are the factors that are affecting the workability of the concrete.
   b) Explain the temperature effects on OPC and PPC based concrete at site.

13. a) Explain the durability and quality control aspects of high strength concrete
    b) Design a mix for M25 grade concrete and assume all the data required

14. a) Discuss in detail the mineral and chemical admixtures
    b) Explain the durability aspects of the high strength fly ash concrete

15. a) Discuss the long term properties of the concrete with suitable examples.
    b) Differentiate between high density concrete and light weight aggregate concrete

16. Discuss in detail the properties and application of recycled aggregate concrete

17. Explain the alkali aggregate reaction and its applications in concrete deterioration.

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