

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

15CT562

Fifth Semester B.E. Degree Examination, Dec.2018/Jan.2019 Special Concrete

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. Explain the micro structure of concrete and its various phases. (08 Marks)
b. Discuss the various factors responsible in affecting strength of concrete. (08 Marks)

OR

- 2 a. Explain in brief selection of material and proportions of mixers suitable for FRC with respect to workability and toughness. (08 Marks)
b. Explain in the behavior of FRC in compression and tension aspects. (08 Marks)

Module-2

- 3 a. What are the applications of high density concrete? List out the ingredients of HDC. (08 Marks)
b. Describe the methods of placing high density concrete (HDC). (08 Marks)

OR

- 4 a. What are the different method of testing Rheology of self compacting concrete (SCC)? (08 Marks)
b. Mention the need of SCC, its applications and properties. (08 Marks)

Module-3

- 5 a. Classify the types of light weight concrete and its properties with respect to strength and durability. (08 Marks)
b. Why Light Weight Concrete is required? List out the ingredients of LWC. (08 Marks)

OR

- 6 a. Explain in brief types of polymer concrete. (08 Marks)
b. Discuss the properties and applications of polymer impregnated concrete. (08 Marks)

Module-4

- 7 a. What are the significance of High strength concrete (HSC) and material required with respect to products of HSC. (08 Marks)
b. List out the properties and applications of HSC. (08 Marks)

OR

- 8 a. What are the methods of making high strength concrete? Explain in brief. (08 Marks)
b. What are the techniques of production of Ultra High Strength Concrete (UHSC), explain in brief. (08 Marks)

Module-5

- 9 a. What are the basic requirement of HPC with respect to Fresh and Hardened concrete? (08 Marks)
b. Write a note on ingredients of HPC and its role / effect in concrete. (08 Marks)

OR

- 10 a. What are the critical parameter's involved in the production of HPC? (08 Marks)
b. Write a note on:
(i) Ground Granulated Blast furnace slay.
(ii) Rice Husk Ash. (08 Marks)

* * * * *

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.