

Code No: R1622014

R16

SET - 1

II B. Tech II Semester Supplementary Examinations, November - 2018

CONCRETE TECHNOLOGY

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)

2. Answer **ALL** the question in **Part-A**

3. Answer any **FOUR** Questions from **Part-B**

PART -A

1.
 - a) Write about deleterious substance in aggregate. (2M)
 - b) What is ready mixed concrete? (3M)
 - c) What is Gel-Space ratio? (2M)
 - d) Write about creep of concrete. (3M)
 - e) What is durability of concrete? (2M)
 - f) Write about no fines concrete. (2M)

PART -B

2. a) What is gap graded and well graded aggregate as per IS CODE? (7M)
b) What are the mineral and chemical admixtures? Explain any two admixtures with example (7M)
3. a) Write the steps in the manufacture of concrete. (7M)
b) What is segregation and bleeding? (7M)
4. a) What are the different tests of hardened concrete? Explain any one test (7M)
b) Write about water cement ratio and Abram's law with neat sketches (7M)
5. What is shrinkage of concrete? What are the different types of shrinkages? Explain (14M)
6. Design a concrete mix for characteristic strength of 30MPa at 28 days with a standard deviation of 5MPa. The specific gravity of FA and CA are 2.60 and 2.70 respectively. A slump of 60mm is necessary. The specific gravity of cement is 3.15. Assuming the necessary data design the mix as per IS code method. (14M)
7. a) What is a Fibre Reinforced concrete? What are the factors affecting FRC? (7M)
b) Write the different fresh property tests of self consolidating concrete. Discuss any one method with sketch (7M)