

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)