

II B. Tech II Semester Supplementary Examinations, April - 2021
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 fineness and setting time of cement. (3M)
- b) Write about curing of concrete. (2M)
- c) What are the different types of curing? (2M)
- d) What is meant by acceptance criteria? (2M)
- e) What is Dynamic modulus of elasticity? (2M)
- f) What is self healing concrete? (3M)

PART -B

2. a) Write in detail about fly ash and silica fume. (7M)
- b) What is bulking of sand and write about the sieve analysis of fine aggregate. (7M)
3. a) Write about mixing and vibration of concrete. (7M)
- b) What are the different properties of fresh concrete? (7M)
4. a) What is strength in tension and compression for concrete? What are the factors affecting the strength? (10M)
- b) Write the codal provisions of NDT. (4M)
5. a) What are the different types of creep and show the relation between creep and shrinkage? (7M)
- b) Mention different types of shrinkages (7M)
6. Design a concrete mix for characteristic strength of 20MPa at 28 days. The specific gravity of FA and CA are 2.60 and 2.75 respectively. A slump of 50mm 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) Write about High performance concrete. (7M)
- b) What are the properties of polymer concrete? (7M)

