

III B. Tech I Semester Regular Examinations, February-2022
CONCRETE TECHNOLOGY

(Civil Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks

UNIT-I

1. a) Explain the mechanical properties of aggregate based in concrete. [8M]
b) Explain the role of admixtures in concrete technology. [7M]

(OR)

2. a) Discuss about effects of fly ash on fresh and hardened properties. [8M]
b) Explain the following in detail about accelerators used in concrete. [7M]

UNIT-II

3. a) Define workability. What are the factors that affect the workability of concrete? [8M]
b) Write notes on Segregation and Bleeding. [7M]

(OR)

4. a) Explain about durability of concrete. [8M]
b) Explain the methods available for measurement of workability of concrete. [7M]

UNIT-III

5. a) What are the non-destructive testing methods in hardened concrete? Explain anyone method. [8M]
b) Explain the importance of split tensile strength of concrete. [7M]

(OR)

6. a) How does the relation between the modulus of elasticity of concrete and strength vary with age? [8M]
b) What are the factors effecting performance of hardened concrete? [7M]

UNIT-IV

7. a) Write notes on: i) Creep ii) Shrinkage of Concrete. [8M]
b) Explain the procedure to find the Poisson's ratio of a concrete. [7M]

(OR)

8. a) List out the main factors affecting the creep of concrete. [8M]
b) Explain the procedure to measure the creep of concrete in the laboratory. [7M]

UNIT-V

9. a) Give the applications of fiber reinforced concrete. [8M]
b) Explain in detail about cellular concrete. [7M]

(OR)

10. a) Write about fly ash concrete and its application. [8M]
b) Discuss about sulphur impregnated concrete. [7M]

