

S. B. Roll. No.....

**CONCRETE TECHNOLOGY**  
**4<sup>th</sup> Exam/Civil/2519/Nov'24**  
**(For 2018 Batch Onwards)**

**Duration: 3Hrs.**

**M.Marks:75**

**SECTION-A**

**Q1. Give answer in one line.**

**15x1=15**

- a. Define workability.
- b. What do you understand by concrete grades?
- c. What is a warehouse?
- d. Which IS Code is referred for concrete technology?
- e. What is the purpose of compaction in concreting?
- f. What are the values of initial and final setting time of cement?
- g. What is the full form of OPC and PPC?
- h. What is the role of gypsum in manufacturing of cement?
- i. Which shape of aggregate is preferred for concreting?
- j. Define stripping time of formwork?
- k. What is transit mixer?
- l. Define Segregation of concrete.
- m. Which test is performed using Lech atelier's apparatus?
- n. What are the dimensions of Slump cone?
- o. What are the units for measuring compressive strength of concrete?

**SECTION-B**

**Q2. Attempt any six questions.**

**6x5=30**

- i. Differentiate between PCC and RCC.
- ii. What is the difference between fine aggregate and coarse aggregate?
- iii. What are the types of cement used in concreting? Explain properties and uses of any one in detail.
- iv. Explain Slump cone test of concrete with diagram?
- v. What are the functions of admixtures in concrete?
- vi. What is the difference between cement, cement mortar and cement concrete?
- vii. Define water cement ratio law. What is the formula for calculating the water cement ratio in concrete?
- viii. Define non- destructive testing of concrete. Why Schmidt's Rebound hammer test is performed on concrete?

**SECTION-C**

**Q3. Attempt any three questions.**

**3x10=30**

- a. Explain in detail factors affecting workability of concrete.
- b. Enlist different tests performed on cement. Explain any two in detail.
- c. Explain curing of concrete? Discuss different methods adopted for curing.
- d. List various types of special concrete. Explain any two in detail.
- e. Explain the precautions to be taken for storing cement.