

ANURAG Engineering College

(An Autonomous Institution)

II B.Tech II Semester Regular Examinations, June/July – 2024

CONCRETE TECHNOLOGY

(CIVIL ENGINEERING)

Time: 3 Hours**Max. Marks: 60****Section – A (Short Answer type questions)****(10 Marks)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. Define chemical admixtures?	CO1	L1	1M
2. What are the Various test which are to be done on aggregates?	CO1	L2	1M
3. Mention the test adopted to test the quality of water?	CO2	L1	1M
4. What are the factors affecting workability?	CO2	L2	1M
5. Mention the test conducted to test the properties of hardened concrete?	CO3	L2	1M
6. Define Abram's water cement law?	CO3	L1	1M
7. Define shrinkage?	CO4	L1	1M
8. What are the factors Affecting Creep?	CO4	L2	1M
9. List out the advantages of Design mix?	CO5	L2	1M
10. Name some of the natural light weight aggregates?	CO5	L1	1M

Section B (Essay Questions)**Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

11. A) How do you conduct the aggregate crushing value and impact value test? what are the acceptance criteria	CO1	L2	10M
OR			
B) Explain the factors promoting the Alkali-Aggregate reaction?	CO1	L3	10M
12. A) What are the properties of fresh Concrete? Explain any two different tests of workability?	CO2	L2	10M
OR			
B) Explain the significance of Quality Control? Explain the procedure of Compaction Factor test?	CO2	L3	10M
13. A) What is the importance of Non-Destructive tests? Why various Non-Destructive methods of testing concrete have been developed?	CO3	L3	10M
OR			
B) With neat diagram of the testing equipment describe the procedure for evaluation of compressive strength of concrete?	CO3	L3	10M
14. A) What is meant by dynamic modulus of elasticity? Explain Procedure for determining dynamic modulus of elasticity using Ultrasonic pulse velocity equipment?	CO4	L2	10M
OR			
B) What is the relation between creep and time? Explain measurement of creep with loading diagram?	CO4	L3	10M

15. A) Explain what is mix design and its practical necessity? What are the different variables in proportioning that influences mix design? CO5 L2 10M
- OR**
- B) Why is light weight concrete preferred for construction particulars in multi-storey building? Explain with respect to their physical characteristics of light weight aggregate concrete? CO5 L3 10M