



B.Tech IV Semester Supplementary Examinations, July 2024

Concrete Technology
(CE)

Maximum Marks: 70

Date:31.07.2024 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks		(10X2M=20 Marks)	CO	Bloom Tx
1	Write about the Hydration of cement?		1	L1
2	Write about the gas foaming admixture.		1	L1
3	List the methods adopted for determining the moisture content of aggregate.		2	L1
4	Define flakiness and elongation index of aggregates.		2	L1
5	Define workability.		3	L1
6	Write short notes on segregation of concrete.		3	L1
7	State Abrams law.		4	L1
8	List the types of shrinkage.		4	L1
9	List the methods used to design the concrete mix proportions.		5	L1
10	Define cellular concrete.		5	L1

Part-B

Answer All the following questions.		(5X10M=50Marks)		
11	a) List the chemical composition of cement and its percentage content. (5M) b) Write about the properties of raw materials used in cement manufacturing. (5M)		1	L2
OR				
12	a) List the functions of admixtures. (5M) b) Explain about any two mineral admixtures. (5M)		1	L2
13	a) Write about thermal properties of aggregates & its effect. (5M) b) Write short notes on soundness of aggregate. (5M)		2	L2
OR				
14	Write about grading of aggregates. (10M)		2	L2
15	Explain the factors affecting setting time of concrete. (10M)		3	L2

	OR		
16	Explain the steps involved in manufacture of concrete. (10M)	3	L2
17	a) Explain about the maturity of concrete. (5M) b) Explain about the factors affecting creep. (5M)	4	L2
	OR		
18	Explain about the NDT on concrete. (10M)	4	L2
19	Obtain the mix proportions for M30 grade concrete. (10M)	5	L2
	OR		
20	Explain about Self Compaction Concrete with its advantages and disadvantages. (10M)	5	L2