



B.Tech IV Semester Supplementary Examinations, February 2024

Concrete Technology
(Civil Engineering)

Maximum Marks: 70

Date: 28.02.2024 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	Define Hydration process.	1	L2
2	List out the types of chemical admixtures.	1	L1
3	Define Bulk density of aggregate.	2	L1
4	List out the factors affecting the properties of aggregates.	2	L2
5	Define Abrams Law.	3	L2
6	What are the type of tests conducted for workability?	3	L1
7	Write about creep of concrete.	4	L2
8	Classify the types of shrinkage in concrete.	4	L1
9	Categorize the different test conducted in Self Compacting Concrete.	5	L1
10	Define Aspect ratio for FRC.	5	L2

Part-B

Answer All the following questions. (5X10M=50Marks)			
11	A. Discuss about the structure of Hydrated Cement. (7) B. Compare OPC and PPC. (3)	1	L3 L2
OR			
12	Explain the different types of cement and its uses. (10)	1	L3
13	Explain the various tests conducted for the fine aggregate in detail. (10)	2	L3
OR			
14	A. Discuss the thermal properties of aggregate in detail. (6) B. Elaborate about sieve analysis of coarse aggregate and its purpose. (4)	2	L4 L3
15	Describe the various factors affecting the workability of fresh concrete. (10)	3	L4
OR			
16	Explain the step-by-step procedure of manufacturing process of concrete with a Flow Chart. (10)	3	L3

17	Explain the Non-Destructive testing methods and Codal provisions for NDT. (10)	4	L4
	OR		
18	A. Describe the relation between creep and shrinkage with a neat sketch. (7) B. Write about Gel-space ratio. (3)	4	L3 L2
19	A. Explain Fibre Reinforced concrete and its factors affecting FRC. (6) B. Write the steps for BIS method of concrete mix? (4)	5	L3 L2
	OR		
20	Discuss light weight concrete. Explain the types of light weight aggregates used in concrete. (10)	5	L3