



USN

Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025

Concreting Techniques and Practices

Time: 3 hrs.

Max. Marks: 100

- Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.
3. Use of IS : 10262 is permitted.*

Module – 1			M	L	C
Q.1	a.	List out and explain the physical and chemical properties of cement.	10	L1	CO1
	b.	Identify and explain the role of flyash and GGBFS in concrete.	10	L3	CO1
OR					
Q.2	a.	List out and explain the physical properties of coarse aggregate.	10	L1	CO1
	b.	Draw and explain the laboratory testing procedure for determining the fineness of flyash.	10	L3	CO1
Module – 2					
Q.3	a.	Briefly discuss the water quality requirements for concrete mixing.	10	L2	CO2
	b.	Briefly discuss the different types of chemical admixtures.	10	L2	CO2
OR					
Q.4	a.	Briefly discuss the marsh cone test.	10	L2	CO2
	b.	Briefly discuss the blending of fine and coarse aggregate.	10	L2	CO2
Module – 3					
Q.5	a.	Identify the advantages of using volumetric mix design and enumerate the mix design procedure.	10	L3	CO3
	b.	Identify and discuss the different materials needed to make high performance concrete.	10	L3	CO3
OR					
Q.6	a.	Identify the advantages of using mix design by absolute volume method and enumerate the mix design procedure.	10	L3	CO3
	b.	Draw and discuss slump cone test.	10	L3	CO3
Module – 4					
Q.7	a.	Briefly explain the production of concrete.	10	L2	CO4
	b.	Write short notes on : i) Cold joints ii) Finishing and curling of concrete.	10	L1	CO4

OR					
Q.8	a.	Briefly explain the ready mix concrete.	10	L2	CO4
	b.	Write short notes on : i) Vibration and compaction of concrete ii) Protection of concrete	10	L1	CO4
Module – 5					
Q.9	a.	Analyze and discuss the making of self compacting concrete.	10	L4	CO3
	b.	Analyze and discuss the reason for plastic shrinkage cracks and plastic settlement.	10	L4	CO4
OR					
Q.10	a.	Analyze and discuss the making of geopolymer concrete.	10	L4	CO3
	b.	Analyze the role of shotcreting and guniting in construction industry.	10	L4	CO4
