K. K. Wagh Institute of Engineering Education & Research, Nashik

(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:V
Class:TY	Program:B.Tech
Branch Code:CIV	Pattern:2022
Name of Course:Advanced Concrete Technology	Course Code:CIV223006A
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 02 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome.

		Marks	CO
Question No. 1			
1a)	Describe the effect of SCM on the hydration process of Portland cement?	(6)	CO1
Question No. 2			
2a)	Illustrate the applications of chemical admixtures?	(6)	CO2
Question No. 3			
3a)	Illustrate the fresh properties of SIFCON?	(8)	CO3
	OR		
3b)	Explain the applications of synthetic fibers)?	(8)	CO3
3c)	Describe the Slurry Infiltrated Fiber CONcrete (SIFCON)?	(8)	CO3
	OR		
3d)	Explain types of steel fibers?	(8)	CO3
Question No. 4			
4a)	Elaborate on the permeability on concrete?	(8)	CO4
	OR		
4b)	Explain the carbonation?	(8)	CO4
4c)	Elaborate the plastic shrinkage?	(8)	CO4
	OR		
4d)	Illustrate the acid attack on concrete?	(8)	CO4
Question No. 5			
5a)	Describe the ultrasonic pulse velocity method on concrete?	(8)	CO5
	OR		

5b)	Elaborate the absorption tests on concrete?	(8)	CO5
5c)	Elaborate electrical resistivity method on concrete?	(8)	CO5

OR

5d)	Explain in detail the permeability tests on concrete?	(8)	CO5

····· End of question paper·····