

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Sixth Semester

Department of Civil Engineering

CE3013–Advanced Construction Techniques

Regulations - 2021

Duration : 3 Hrs

Maximum: 100 Marks

PART – A(ANSWER ALL QUESTIONS) (Marks 10*2=20)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	What are the advantages of tunnel boring machines?	RE	1	2
2.	What are the methods of providing shoring for trenches?	RE	1	2
3.	What is prestressed concrete?	RE	2	2
4.	Mention the light weight components of tall structures.	UN	2	2
5.	Give the uses of silos.	RE	3	2
6.	Write the classification of bridges.	UN	3	2
7.	What are the techniques required for repairing cracks?	RE	4	2
8.	Outline the different methods of prevention of corrosion in Reinforcement?	UN	4	2
9.	List the methods of demolition used in construction methods.	UN	5	2
10.	What are the major factors in selecting a demolition procedure?	RE	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a i Describe the various methods adopted to construct a diaphragm wall.	UN	1	7
	ii Illustrate the various methods of Caisson foundation.	UN	1	6
	Or			
	b Explain in detail about the various methods of dewatering process with neat sketch.	UN	1	13
12.	a Explain the construction procedure for pre-stressing in high rise structures	UN	2	13
	Or			
	b i Summarize the various techniques used for construction of heavy decks.	UN	2	6
	ii Discuss the process of insitu prestressing in high rise structures.	UN	2	7
13.	a Explain about the support structures required for heavy equipments and conveyor	UN	3	13
	Or			
	b Infer the detail of erection of steel transmission towers/Lattice towers.	UN	3	13

14.	a	i	Define underpinning and discuss the procedure of underpinning done for structures.	RE	4	7
		ii	Outline the detail of Wall thickening techniques of retrofitting.	UN	4	6
Or						
	b	i	Illustrate about Shoring and Classification.	UN	4	6
		ii	Interpret notes on Underpinning techniques.	UN	4	7
15.	a		Explain in detail about various demolition technique	UN	5	13
	Or					
	b		Explain the Safety measures in demolition of Structural members.	UN	5	13

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>	<i>Questions</i>		<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	Write the subsystems or components of the tall building structural systems	UN	2	15
		Or			
	b	How do you strengthen the various structural elements? Explain in detail with sketches.	RE	4	15