

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025***Sixth Semester**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.	Compare box jacking and pipe jacking.	L2	1	2
2.	List the techniques adopted for tunneling.	L1	1	2
3.	What are the different types of stresses that can happen when a structure is standing tall?	L2	2	2
4.	What is meant by prestressed concrete?	L1	2	2
5.	Outline the key phases in the construction sequence of cooling towers.	L2	3	2
6.	What are the situations in which articulated structures can be used?	L1	3	2
7.	Which method can be used to improve the stability of masonry walls during an earthquake?	L2	4	2
8.	Outline the purpose of mud jacking in foundation repair.	L2	4	2
9.	List the key advantages of using explosives in demolition.	L2	5	2
10.	How does dismantling differ from traditional demolition?	L1	5	2

PART - B (ANSWER ALL QUESTIONS) (Marks 5*16= 80)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Describe the procedure involved in under water construction of diaphragm walls and basement. Or	L2	1	16
	b Enumerate the process of dewatering and the uses of stand by equipment for underground open excavation.	L2	1	16
12.	a Identify the method for erecting lightweight components in tall structures? Describe the key steps and techniques involved in the process. Or	L3	2	16
	b Discuss in detail the various techniques used for the construction of heavy decks with their applications.	L3	2	16
13.	a Interpret the procedure involved in launching and pushing box decks in construction. Or	L2	3	16
	b Illustrate the support structures required for heavy equipment's and machinery in heavy industries.	L2	3	16

14.	a	Examine the various methods of seismic retrofitting and strengthening of structures including its applications and effectiveness.	L4	4	16
		Or			
	b	Classify the techniques of micro piling and underpinning used for strengthening floors and shallow foundations.	L4	4	16
15.	a	Analyze the various demolition techniques focusing on demolition by machines and demolition by explosives.	L4	5	16
		Or			
	b	Evaluate the essential safety precaution that must be implemented during demolition and dismantling processes.	L4	5	16