R18 Regulation *Subject code:2P6AB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Supplementary Examinations, April 2026

FOUNDATION ENGINEERING

(CE)

Maximum Marks: 70 Date: 16.04.2026 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.
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)		Marks	CO	BTL
1	Differentiate disturbed and undisturbed samples?	2M	1	L1
2	What is site reconnaissance?	2M	1	L1
3	Define Stability number?	2M	2	L1
4	What are the Factor of safety used in stability Analysis of slopes?	2M	2	L1
5	Define Passive Earth pressure.	2M	3	L1
6	Write types of retaining walls.	2M	3	L1
7	State the different modes of shear failure.	2M	4	L1
8	What are the Assumptions made in Terzaghi's Analysis?	2M	4	L1
9	What are the different types of piles according to Material of construction?	2M	5	L1
10	What is mean by sinking of well?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Briefly explain with neat sketch Standard Penetration Test and the Correction to be applied to find ' N' value.	10M	1	L2
12	What are the assumptions that are generally made in the stability of slopes? Discus the factors leading to the failure of soil slopes. Also sketch the different types of slope failures.	10M	1	L2
13	Explain the Swedish Circle method of Analysis of slopes. Derive an expression for factor of safety?	10M	2	L2
14	Explain the friction Circle method of analysis in stability of slopes.	10M	2	L2
15	Explain the coulomb's Wedge theory of earth pressure with a neat sketch.	10M	3	L2
16	a) Explain with neat sketch the Culmann's method of calculating active earth Pressure. b) What are the assumptions in coulomb's theory.	5M 5M	3	L2

17	Derive an expression for active pressure when the ground surface in inclined?	10M	4	L2
18	How would you estimate the load carrying capacity of a pile in a) Cohesionless soils b) cohesive soils	5M 5M	4	L2
19	What are different shapes of wells? Discuss the characteristics of each type.	10M	5	L2
	OR			
20	a) Discuss different methods for the installation of piles. b) What consideration govern the fixing of the depth of a well foundation?	5M 5M	5	L2