



*R20 Regulation* *Subject code: 3P3AC*  
**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**  
 (Autonomous, Accredited by NAAC with 'A+' Grade)

**B.Tech III Semester Supplementary Examinations, July 2024**

**SURVEYING AND GEOMATICS**  
**(CE)**

**Maximum Marks: 70**

Date:23.07.2024 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 which carries 10M.  
 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)	CO	Bloom Tx
1	What is chain surveying ? Mention types of chains.		1	L1
2	Explain Plumb Bob, with neat sketch?		1	L1
3	Define Local Attraction?		2	L1
4	Define Level Line?		2	L1
5	Define Instrument height.?		3	L1
6	Write the formula for Trapezoidal rule?		3	L1
7	Mention the types of curves and their necessity?		4	L1
8	What is stadia method of Tacheometry?		4	L1
9	Define simple curve?		5	L1
10	Write the Principle of Total Station/		5	L1

**Part-B**

Answer All the following questions.		(5X10M=50Marks)		
11	a) Define true meridian, local attraction, magnetic declination, dip of needle and differentiate between Quadrantal bearing and whole circle bearing.(5M) b) What are the Objectives of surveying? (5M)		1	L2
OR				
12	What are the types obstacles in chain surveying. Explain them with neat sketches? (10M)		1	L2
13	Explain different methods of Contouring. (10M)		2	L2
OR				
14	Explain stadia method and tangential method in tacheometry. (10M)		2	L2
15	a) Explain in brief the various temporary adjustments of a theodolite? (5M) b) What are the different types of errors which can occur in theodolite surveying? How would you avoid them? (5M)		3	L2
OR				

16	Briefly explain about the measurement of horizontal angle by reiteration method and repetition Method with sketches. (10M)	3	L2
17	Explain different systems of tacheometry measurements? (10M)	4	L2
	OR		
18	a) Derive relation between Degree and Radius of curve? (5M) b) What is Compound Curve and draw the sketches? (5M)	4	L2
19	Explain Different segments in GPS and applications of GPS. (10M)	5	L2
	OR		
20	What is Electromagnetic wave theory? Explain Electromagnetic distance measuring system.? (10M)	5	L2