



R20 Regulation

Subject code: 3E5AA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Supplementary Examinations, July 2024

**TRANSPORTATION ENGINEERING
(CIVIL ENGINEERING)**

Maximum Marks: 70

Date:30.07.2024 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.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A		CO	Bloom Tx
All the following questions carry equal marks (10X2M=20 Marks)			
1	Write a short note on carriageway width?	1	I
2	Explain about central road fund.	1	II
3	Define gradient?	2	I
4	What are the design issues in highway geometrics?	2	I
5	Write a short note on manual counts in traffic volume studies?	3	I
6	What do you mean by traffic signs, enlist its objectives?	3	I
7	Define At-grade intersection.	4	I
8	Present design factor of rotary intersection.	4	I
9	Differentiate between flexible & rigid pavement.	5	I
10	How settlement can be eliminated in construction pavement?	5	I
Part-B			Bloom Tx level
Answer All the following questions. (5X10M=50Marks)			
11	A. Write stages in engineering surveys before alignment? [5] B. Explain the role of transportation in rural development. [5]	1 1	II II
OR			
12	A. What are the factors affecting highway alignment? [5] B. Compare the highlights of 1 st , 2 nd & 3 rd twenty year road plan. [5]	1 1	II II
13	A. Derive an expression for computing overtaking sight distance. [5] B. Explain briefly the highway cross section elements. [5]	2 2	II II
OR			
14	A. Calculate the stopping sight distance for a speed of 90kmph. Take the total reaction time 2.5seconds and the coefficients of friction as 0.35. [5] B. Demonstrate the procedure for determining total reaction time of the driver? [5]	2 2	IV II
15	Explain the various types of road markings. [10]	3 3	II II

	OR		
16	A. What are the advantages & disadvantages of traffic signals. [5] B. Explain briefly about road accidents causes & preventive measures. [5]	3 3	II II
17	Explain the concept and design criteria of Rotary Island. [10]	4	II
	OR		
18	Explain different types of intersections. [10]	4	II
19	A. Explain the function of various layers in flexible pavement with a neat sketch. [5] B. Explain briefly the concept of equivalent single wheel load (ESWL). [5]	5 5	II II
	OR		
20	A. Write down step by step procedure of rigid pavement as suggested by IRC. [5] B. Discuss the types of joints in CC pavements and their functions. [5]	5 5	II II