R18

Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year II Semester Supplementary Examinations February-2022
TRANSPORTATION ENGINEERING
(Civil Engineering)

Time: 3 hours

Max. Marks: 60

PART-A
(Answer all the Questions 5 x 2 = 10 Marks)

1	a	Define super elevation.	2M
	b	Define 'Optimum Cycle Time' used in Signal Design by Webster method.	2M
	c	List out the stresses in rigid pavement.	2M
	d	What are the different types of rails used?	2M
	e	Define grade compensation	2M

PART-B
(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	List the Factors affecting OSD. Explain Lag distance and Braking distance.	5M
	b	Explain PIEV theory.	5M

OR

3	What are the engineering surveys conducted to fix the alignment of a highway?	10M

UNIT-II

4	What are the objectives of Traffic Volume studies? What are the methods of presentation of Volume Data?	10M

OR

5	Explain grade separated intersections, the advantages and limitations	10M

UNIT-III

6	What are the factors should be considered for the design of flexible and rigid pavements Discuss the significance of each	10M

OR

7	Classify different types of joints in CC pavements and mention the objects of each	10M

UNIT-IV

8	a	Draw a typical cross section of permanent way and show various components.	6M
	b	What are the advantages and disadvantages of concrete sleepers?	4M

OR

9	a	Explain for coning of wheels.	5M
	b	What are the functions of ballast?	5M

UNIT-V

10	a	Explain briefly about types of Marshalling yards.	5M
	b	What is cant deficiency? Discuss briefly about the limits of cant deficiency.	5M

OR

11	Discuss briefly about stations with different types	10M

END