Reg. No: ☐☐☐☐☐☐☐☐☐☐

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year II Semester Supplementary Examinations Dec 2019
TRANSPORTATION ENGINEERING-I
(Civil Engineering)

Time: 3 hours　　　　　　　　　　　　　　　　　　　　　　Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	a	What are the characteristics of road transport in comparison with other systems?	6M
	b	What are the different modes of transportation? Explain the specific functions of each of them.	6M

OR

2	a	Define highway alignment. What are the factors affecting highway alignment?	6M
	b	What is the classification of highways adopted in different road development plans? Discuss.	6M

UNIT-II

3	a	What is camber? Why camber is to be provided for a road surface? Explain	6M
	b	Why super elevation is required on a horizontal curve? Why it is provided on curves.	6M

OR

4	a	Define Stopping Sight Distance (SSD) and Over taking Sight distance (OSD).	6M
	b	Explain briefly about different types of transition curves commonly adopted.	6M

UNIT-III

5	a	What are the objectives of speed studies?	6M
	b	Enumerate the different methods of carrying out traffic volume studies.	6M

OR

6	a	Define intersection? What are the various types of at grade Intersections?	6M
	b	Discuss about various Engineering measures that can help in reducing the accident rate.	6M

UNIT-IV

7	Explain the desirable properties of aggregates to be used in different types of pavement construction.	12M

OR

8	What are the various tests carried out on bitumen? Briefly mention the principle and uses of each test.	12M

UNIT-V

9	a	Differentiate between flexible pavements and rigid pavements.	6M
	b	What are the functions of tie bars and dowel bars in rigid pavements?	6M

OR

10	Draw a sketch of flexible pavement cross section and show the component parts. Enumerate the functions and importance of each component of the pavement.	12M

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