

Code No: P18CET12

HALL TICKET NUMBER

--	--	--	--	--	--	--	--	--	--



PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE  
(AUTONOMOUS)

III B.TECH I SEMESTER END REGULAR EXAMINATIONS, DEC/JAN – 2022/23  
TRANSPORTATION ENGINEERING -I  
(CE Branch)

Time: 3 hours

Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

Answer all the questions in Part-A (5X2=10M).

Q.No.	Questions	Marks	CO	KL
1.	a) What are the different tests that are to be conducted on coarse aggregate to test their suitability for road work?	[2M]	1	1
	b) What is mean by Intermediate Sight Distance?	[2M]	2	1
	c) With a neat sketch explain enoscope method for spot speed studies	[2M]	3	2
	d) Write the difference between flexible pavement and rigid pavement.	[2M]	4	2
	e) What are various maintenance activities for Highways?	[2M]	5	1

PART-B

Answer One Question from each UNIT (5X10=50M)

Q.No.	Questions	Marks	CO	KL
UNIT-I				
2.	a) Explain the objective of California Bearing Ratio test.	[5M]	1	2
	b) What are the various tests that are to be conducted on bitumen while characterizing it for a road work?	[5M]	1	1
OR				
3.	What are various surveys to be carried out before planning a highway system for a given area, explain briefly?	[10M]	1	1
UNIT-II				
4.	a) With neat sketches explain how to attain super elevation in the field?	[5M]	2	2
	b) Design the rate of super elevation for a horizontal highway curve of radius 400ms and speed 80kmph, assume all other suitable data.	[5M]	2	6
OR				
5.	a) With a neat sketch explain the concept of Overtaking Sight Distance.	[5M]	2	2
	b) What is meant by horizontal transition curve, what are the different types of transition curves that are commonly adopted in horizontal alignment of a highway?	[5M]	2	1
UNIT-III				
6.	a) Explain the various measures that may be taken to decrease accident rate.	[5M]	3	2
	b) What are the advantages and disadvantages of traffic signals?	[5M]	3	1
OR				
7.	What are the types of intersections and explain in detailed.	[10M]	3	1
UNIT-IV				
8.	Explain the different design consideration in rigid pavements.	[10M]	4	2



OR					
9.		Explain about various functions of different components of flexible pavement.	[10M]	4	2
UNIT-V					
10.		Explain step by step procedure for construction of gravel roads.	[10M]	5	2
OR					
11.		Explain the construction procedure for water bound macadam road.	[10M]	5	2

\*\*\*\*\*