Code No: P18CET12

HALL TICKET NUMBER

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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)
III B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, MARCH/APRIL – 2023
TRANSPORTATION ENGINEERING -I
(CE Branch)

Time: 3 hours   Max. Marks: 60

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

<u>PART-A</u>

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

Q.No.		Questions	Marks	CO	KL
1.	a)	What are the different classifications of roads?	[2M]	1	1
	b)	Differentiate S.S.D and O.S.D	[2M]	2	4
	c)	List out different Traffic volume studies.	[2M]	3	1
	d)	What are the different combinations of stresses?	[2M]	4	1
	e)	List out different types of Highway construction methods.	[2M]	5	1

PART-B

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

Q.No.		Questions	Marks	CO	KL
		UNIT-I			
2.	a)	Explain in detail different Road Network patterns	[5M]	1	2
	b)	Explain in detail Nagpur first Twenty year plan.	[5M]	1	2
		OR			
3.	a)	Write about factors affecting Alignment with neat diagrams.	[5M]	1	1
	b)	Explain in detail C.B.R method.	[5M]	1	2
		UNIT-II			
4.	a)	Write about Highway cross sectional Elements.	[5M]	2	1
	b)	Determine the safe stopping distance for design speed of 50 kmph for two-way traffic on a two lane road. Assume coefficient of friction as 0.37 and reaction time of driver as 2.5seconds	[5M]	2	3
		OR			
5.	a)	Derive the expression for Super elevation with a neat diagram.	[5M]	2	3
	b)	Explain in detail different gradients of roads.	[5M]	2	2
		UNIT-III			
6.	a)	Write about Speed and Delay studies.	[5M]	3	1
	b)	Explain in brief about Road Accident causes and preventive measures.	[5M]	3	2
		OR			
7.	a)	Draw the different Road Traffic signs.	[5M]	3	3
	b)	Explain in detail Webster Method for design of Traffic signal.	[5M]	3	2
		UNIT-IV			
8.	a)	Explain in brief design factors of Flexible pavements.	[5M]	4	2
	b)	Explain on brief functions of pavement componenets.	[5M]	4	2
		OR			

9.		Explain in detail westergaards stress theory.	[10M]	4	2
		UNIT-V			
10.		Explain step by step procedure for construction of cement concrete pavements	[10M]	5	2
		OR			
11.		Explain Strengthening of Existing Pavements.	[10M]	5	2

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