R13

Code No: 126AE JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD B.Tech III Year II Semester Examinations, May - 2016 TRANSPORTATION ENGINEERING – I (Civil Engineering)

Time: 3 hours

Max. Marks: 75

Note: This question paper contains two parts A and B. Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

1.a)	Classify the road systems at regional/ national and urban level.	[2]
b)	What are the factors effecting highway alignment?	[3]
c)	What are the design issues in highway geometrics?	[2]
d)	How do you frame design controls in geometrics of highway explain from e	ach feature
	with specification?	[3]
e)	What are the different traffic signs and their relevance?	[2]
f)	Present different types of road markings, their specifications and their relevant	nce. [3]
g)	Draw and explain different types of grade separated interchanges.	[2]
h)	Draw typical conflict points in an intersection and suggest different	t types of
	treatments.	[3]
i)	Present different types of pavement failures.	[2]
j)	Draw the cross sectional view of joints and filler in concrete pavements.	[3]
	PART - B	
		(50 Marks)
2.a)	Present on different road developments in India.	
b)	What are the different road network patterns and explain their benefits?	[5+5]
-)	OR	[•••]
3.a)	Present on Engineering surveys to be conducted for highway construction.	
b)	Present the different drawings to be developed for facilitating to construct a h	nighway.
		[5+5]
4.a)	Develop the equation form for super elevation design.	
b)	What is the IRC suggested approach for super elevation implementation?	[5+5]
	OR	
5.a)	Develop the equation form for Extra widening at transition curve.	
b)	Develop the equation forms for designing the different vertical curves.	[5+5]
6.a)	Explain the survey procedure for speed studies and present the differen	t forms of
	representation.	
b)	What are the different types of parking surveys and explain them in detail?	[5+5]
	OR	
7.a)	Present on accident www.rd Mathadk@fsilit_prossing Qiaglans accidents.	to analyze
b)	Present the design procedure of isolated traffic signal.	[5+5]
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8.a)	Present the different types of islands and their functionality in reducing the conflicts.	
b)	Present the design procedure of rotary as traffic Control Island.	[5+5]
	OR	
9.a)	What are the requirements of at grade intersection?	
b)	Present on different types of intersections.	[5+5]
10.a)	Present the construction procedure of any black top road?	
b)	Present the test procedures to characterize the highway materials?	[5+5]
	OR	
11.a)	Present the construction procedure of cement concrete road?	
b)	Present the construction procedure of concrete joints?	[5+5]

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