

**CONTINUOUS INTERNAL EVALUATION- 2**

Dept: CV Sem / Div: 5 sem Sub: Highway Engg S Code: 18CV56

Date: 03-12-2020 Time: 2.30-4.00 PM Max Marks: 50 Elective: N

Note: Answer any 2 full questions, choosing one full question from each part.

QN	Questions	Marks	RBT	COs
<b>PART A</b>				
1	a Clarify the features of ideal alignment and enumerate factors affecting alignment	8	L2	CO3
	b List the objectives of providing super elevation and extra widening of pavement on horizontal curves.	8	L2	CO3
	c A vehicle is moving at 55kmph on a single lane pavement of width 4mts on level surface. The reaction time is 2.3secs and coefficient of longitudinal friction is 0.39. Determine the intermediate sight distance	9	L4	CO3
<b>OR</b>				
2	a Explain PIEV theory	8	L2	CO3
	b Draw the typical cross section of following roads indicating the width of pavement roadway and land: i) National highway in embankment in rural areas ii) A divided highway in urban areas	8	L2	CO3
	c A NH passing through a plain terrain has a horizontal curve of radius equal to the ruling minimum radius. If the design speed is 100 kmph. Calculate the: i) design super elevation ii) Extra widening iii) Length of transition curve. Make suitable assumptions.	9	L4	CO3
<b>PART B</b>				
3	a Enumerate in detail the requirements, specifications of materials and the construction steps for wet mix macadam layer (WMM)	8	L2	CO3
	b Write short notes on i) Bituminous macadam ii) Bituminous concrete iii) Prime coat iv) Seal coat	8	L2	CO3
	c Briefly outline the design procedure of soil aggregate mixes by Rothfuch's method	9	L4	CO3
<b>OR</b>				
4	a Explain in detail the requirements, specifications of materials and the construction steps for Bituminous Concrete (BC) layer.	8	L2	CO3
	b Write a note on types of failures in flexible pavement.	8	L2	CO3
	c Enumerate in detail the requirements, specifications of materials and the construction steps for pavement quality concrete	9	L4	CO3


