Enrollment No.												

KADI SARVA VISHWAVIDYALAYA

LDRP INSTITUTE OF TECHNOLOGY & RESEARCH, GANDHINAGAR.

B.E. 4th Semester

REMEDIAL EXAMINATION

Date/Day : 05/04/2014 **Branch : CIVIL**

Sub Code : CV 404 **Subject Name: HIGHWAY ENGINEERING**

Time : 08:30 AM to 10:00 AM **Max. Marks : 30**

Instructions: 1) All questions are **compulsory**

2) Figures to the **right** indicate full marks.

3) Indicate **clearly**, the options you attempt along with its respective question number.

Q.1	(a)	Describe factors affecting sight distance	[5]
	(b)	Explain with neat sketch penetration test for bitumen	[5]
Q.2	(a)	Sketch cross section of divided highway in urban area.	[5]
	(b)	Find the SSD for a design speed of 80 kmph. Assume suitable data. What are the SSD requirements at a gradient of 1 in 30 for the same design speed?	[5]
		OR	
	(b)	Describe various engineering surreys to be carried out for location of highway alignment	[5]
Q.3	(a)	Explain BOT project for highways.	[5]
	(b)	Describe aggregate impact value test with IRC limits.	[5]
		OR	
	(a)	Write short note on road user characteristics	[5]
	(b)	Explain Properties of aggregate.	[5]

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LDRP INSTITUTE OF TECHNOLOGY & RESEARCH, GANDHINAGAR.

B.E. 4th Semester

MID SEMESTER EXAMINATION

Date/Day : 04/03/2015,WENSDAY **Branch : CIVIL**

Sub Code : CV 404 **Subject Name: HIGHWAY ENGINEERING**

Time : 12:00 PM to 1:30PM **Max. Marks : 30**

Instructions: 1) All questions are **compulsory**

2) Figures to the **right** indicate full marks.

3) Indicate **clearly**, the options you attempt along with its respective question number.

Q.1 **Attempt any two** **[10]**

(a) Draw a cross-section of road structure showing its components and explain function of any two of them. **[5]**

(b) Discuss about various road authorities working in highway planning and development in india. **[5]**

(c) The speeds of overtaking and overtaken vehicles are 60 kmph an 40 kmph respectively. If the acceleration of the overtaking vehicle is 2.5 kmph per second, calculate the safe passing sight distance for (i) One way traffic (ii) Two way traffic **[5]**

Q.2 **(a)** Describe factors affecting sight distance **[5]**

(b) A horizontal circular curve has radius 100m. If the design speed of vehicle is 50kmph and f=0.15,(a) calculate super elevation (b) Lateral friction coefficient if no super elevation is provided.(c) Equilibrium super elevation if pressure on outer and inner wheel is equal. **[5]**

OR

(a) Write a short note on Super elevation. **[5]**

(b) Write recommended values of camber and right of way **[5]**

Q.3 **(a)** Enlist factor affecting road alignment and explain any four. **[5]**

(b) Explain the desirable properties of aggregate to be used in the different types of pavement construction. **[5]**

OR

(a) What are the purposes of soil investigation? **[5]**

(b) Explain CBR test. **[5]**

All The Best