

- (b) Describe cloverleaf intersection with neat sketches. 5

Unit IV

7. Describe various types of curb parking. How parking surveys are conducted ? In a parking survey the peak demand for parking in a marketing complex was estimated to be 200 cars per hour. If these cars are to be parked on street how much road length will be occupied in 45 degree parking on both sides of a road. 15
8. Describe various medium and long term traffic management measures and their uses. What is traffic calming ? Discuss the limitations of Motor Vehicle Act. 15

No. of Printed Pages : 04

Roll No.

G-153

B. Tech. EXAMINATION, May 2017

(Seventh Semester)

(Electives) (B. Scheme) (Re-appear Only)

CE-469-B

TRAFFICE ENGINEERING

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) Describe various human factors important for a traffic engineer. **7**
(b) Calculate design hourly traffic for an intersection with the help of the following data. AADT estimated is 8500. **8**

No. of hours exceeding	1	5	10	20	30	60	90	150	300
% AADT	24	20	18	16	15.6	15	14	13	12

2. (a) Describe the importance of speed and delay study. How is it done ? **7**
(b) What are the uses of traffic volume data ? Differentiate between ADT and AADT. **8**

Unit II

3. (a) What are various factors affecting road capacity ? Describe how heavy vehicles reduce the capacity of a road. How will you determine the capacity of a rotary intersection ? **10**
(b) What is PCU ? Discuss its uses. **5**

4. What are various types of accidents ? Why percentage of fatal accidents is more on Indian highways as compared to developed nations ? Discuss the reasons in detail. **15**

Unit III

5. (a) What are various types of road signs ? Explain with neat sketches. **8**
(b) What are the design elements of a road lighting system ? **7**
6. (a) Design a traffic signals for a 4 lane divided National highway meeting to a two lane state highway with the following data : The peak our traffic flow on the two approaches of National highway are 1650 and 1750 respectively and that on state highway are 450 and 475. Assuming saturation flow rates of 300 veh/m width upto 3.5 m width and 400 veh/m width after that design cycle timings. Assume other data as per IRC guidelines.