

Roll No

CE-8003 (2) (CBGS)**B.E. VIII Semester**

Examination, May 2019

Choice Based Grading System (CBGS)**Traffic Engineering**

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
 ii) All questions carry equal marks.
 iii) Make suitable assumptions wherever necessary.

1. a) Define: 4
 i) Operating speed
 ii) Design speed
 iii) Space mean speed
 b) How do different vehicular characteristics affects road features? 6
 c) Define traffic engineering. What is scope of traffic engineering? 4
2. a) What is the need of traffic volume study? Explain methods of traffic volume study. 7
 b) Explain the presentation of O-D data with sketch. 7
 OR
 Explain PIEV theory with neat sketch.
3. a) Draw layout of lighting on: 8
 i) Single side of road
 ii) Both side of road (staggered)
 iii) At T intersection
 iv) At cross roads
 b) Explain collision and condition diagram. List preventive measure for road accidents. 6

4. a) Define: 4
 i) Luminous flux
 ii) Lumen
 iii) Candela
 b) Draw a fundamental diagram of traffic flow. 4
 c) What is the importance of highway lighting? State the factors influencing night visibility. 6
5. a) Explain the Fundamental factors of night vision. 4
 b) Discuss the -advantages and limitations of One way streets. 4
 c) Explain various methods of on-street parking. 6
6. a) Explain vehicular characteristics considered in traffic engineering. 7
 b) Draw at least 5 signs of each (not to scale) 7
 i) Regulatory signs
 ii) Warning signs
 iii) Information signs
7. a) What are the advantages and disadvantages of providing traffic signals? 7
 b) Find Time mean speed and space mean speed from following data. 7

Speed range (kmph)	Frequency
0-10	8
10-20	18
20-30	26
30-40	30
40-50	18

8. a) Explain various types of road marking as per IRC. 7
 OR
 Discuss the Different types of light sources used for street lighting.
 b) Explain the brief study of mass transportation available in the country. 7

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