

**CE-7102 B.E. VII Semester**

Examination, December 2014

**Traffic Engineering (Elective I)**

***Time; Three Hours Maximum Marks: 70***

**Note:** i) All questions carry equal marks.

ii) Attempt any five questions selecting one from each unit.

iii) Assume suitable data if found missing.

**UNIT-I**

1. a) Explain PIEV theory of reaction time of driver.

b) Discuss different characteristics of vehicle related to rest condition. 7

**OR**

2. a) Explain different Road User's characteristics affecting their performance. 7

b) Discuss various characteristics of Vehicle related to moving condition.

**UNIT-II**

3. a) How moving Car survey is carried out? Explain analysis of data obtained. 7

b) How origin and destination survey is done by different method?

**OR**

4. a) Write a note on :

i) Practical capacity of road

ii) Level of service

**7**

b) How Traffic volume survey is carried out? Explain presentation of data obtained.

5. a) The 15 min traffic counts on road A and road B at intersection are 180 and 140 vehicles respectively. The approach speeds are 70 and 55 Km/h respectively. Design the traffic signals using principles of Trial Cycle Method. 7

b) Explain merits and demerits of one way street.

**OR**

6. a) Discuss different methods of Coordination of signals at different intersections.

b) Write a note on i) Traffic actuated signal ii) Pedestrian signal

**UNIT-IV**

7. a) Explain design of street lighting system.  
b) How light is distributed by various methods?

OR

8. a) Write a note on  
i) Utilization factor ii) Maintenance factor. 7  
b) Discuss the effect of height and projection of Lamp on length of shadow through neat sketches. Explain other factors affecting lighting of road. 7

UNIT- V

9. a) Explain condition diagram and collision diagram. 7  
b) Explain importance of Accident Survey in India and Abroad. 7

OR

10. Discuss merits, demerits and various features of Mass Transportation in detail. 14