Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CE) (2011 Onwards E-I & II) (Sem.–7,8)

TRAFFIC ENGINEERING

Subject Code : BTCE-819

M.Code : 71878

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a) What are the different components of Vehicle operating cost?

b) Define PCU.

c) Differentiate between Access Controlled Highways and Expressways.

d) What does "3-Es" stand for in traffic engineering?

e) Explain how Channelisation can be done.

f) Define Possible Capacity.

g) What do you understand by space and time headway?

h) Differentiate between grade separated and at grade intersections.

i) Differentiate between Loading Island and Pedestrian Island.

j) What do you mean by Off-street parking? What are its various types?

SECTION-B

2. Explain in detail Road Safety Audit.

3. Explain briefly various design factors that are to be considered in rotary intersection design.

4. Describe the use of Intelligent Transportation System in Traffic Engineering.

5. What is the significance of road user characteristics in traffic engineering? Discuss various factors which affect the road user characteristics and their effects in traffic performance.

6. Discuss briefly various factors affecting the practical capacity of road.

SECTION-C

7. The intersection of Madhya Marg and Udhyan Path in Chandigarh is to be signalized. Madhya Marg is 13m wide, having an approach volume of 600 vehicles per hour and 70-30 split during the peak hour. Approach speed is 55km/hr. Udhyan Path is 7m wide, having an approach volume of 450 vehicles per hour with a 80-20 split and approach speed is 40km/hr. there is a lot of pedestrian and bicycle traffic at the intersection. Determine the cycle time, green and amber times for each marg.

8. Explain in detail the Speed - Flow - Density Relationship.

9. What do you mean by Traffic signs? What are the various types, explain with neat diagrams.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.