

B.Tech. IN CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

00025

December, 2014

BICEE-023 : TRAFFIC ENGINEERING

Time : 3 hours

Maximum Marks : 70

Note : Attempt any **five** questions. All questions carry equal marks.

1. (a) Define traffic engineering. What are the objectives of traffic engineering ? 7
(b) Discuss the various factors which affect the road user characteristics. 7
2. Explain, with the help of a case study, the speed and delay analysis. What methods and equipments are used for these studies ? 14
3. (a) What are the various causes of road accidents ? 7
(b) Discuss, in detail, the factors that are considered for the design of road lighting. 7
4. (a) What are the objectives and needs for regulation and management of traffic engineering facilities ? 7
(b) Discuss the factors that are considered for selection of a bus stop location. Briefly discuss the design of a bus bay. 7

5. Explain air and noise pollution associated with different transport modes. Also discuss the various technological approaches to improve the environment, in brief. 14
6. Define traffic rotary. What are the advantages and disadvantages of traffic rotary ? Explain briefly the various design factors that are considered in the design of a rotary intersection. 14
7. (a) Write a detailed note on planning and design of pedestrian facilities. 7
- (b) What are the various methods of signal design ? Discuss in detail. 7
8. What is the purpose of the following traffic engineering facilities : $7 \times 2 = 14$
- (a) Carpool lane
 - (b) One-way streets
 - (c) Channelizing island
 - (d) Roundabout
 - (e) Grade separated intersection
 - (f) Transit lane
 - (g) Staggered crossing
-