

B.Tech. CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

December, 2017

00562

BICEE-023 : TRAFFIC ENGINEERING

Time : 3 hours

Maximum Marks : 70

*Note : Attempt any **five** questions. All questions carry equal marks. Use of scientific calculator is permitted.*

1. What is traffic engineering ? What are the objectives of traffic engineering studies ? Explain various methods used in traffic volume study and analysis. 14

2. (a) Write different components of road traffic. Discuss their characteristics. 7
(b) Discuss the time sharing and space sharing concepts to control the traffic movements. 7

3. (a) What are grade separated intersections ? Explain their salient features. 7
(b) What provisions should be made by a traffic engineer to allow safe crossing of pedestrians and cyclists at at-grade intersections ? 7

4. Discuss in detail, the planning and design of various traffic management measures. 14
5. (a) Discuss with the help of neat diagrams, lighting layouts for highways and intersections. 9
- (b) Explain origin and destination study and its uses in brief. 5
6. (a) Describe different modes of transportation. Examine their impact on the environment. 8
- (b) Discuss briefly, planning and designing of transit and carpool lanes. 6
7. Write short notes on any *four* of the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Traffic Signals
- (b) Underpass
- (c) Channelising Island
- (d) Traffic Maneuvers
- (e) Speed and Delay Studies
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