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BICEE-023

B.Tech. CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

00663 **June, 2018**

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. Assume suitable data, if necessary.*

1. Discuss the scope of traffic engineering. What are the basic elements that are involved in road traffic systems ? Explain. *14*

2. Enumerate the driver's characteristics. Explain visual acuity and field of vision. *14*

3. Explain the uses of traffic volume study and origin-destination study in traffic engineering. Discuss one method of each study. *14*

4. Discuss the factors responsible for road accidents with respect to *14*

(a) Driver's inability and negligence,

(b) Vehicle defects, and

(c) Road defects.

5. Explain the terms "traffic capacity", "basic capacity", "possible capacity" and "practical capacity". Also estimate the basic capacity of a traffic lane at a speed of 60 kmph, assuming average length of vehicle as 6 m. *14*

6. Answer any ***two*** of the following : *2×7=14*

(a) What are various types of traffic signs ? Classify them with neat sketches.

(b) What are various types of pavement markings ? Discuss the uses of each.

(c) Discuss relative merits and demerits of parallel and angled types of kerb parking patterns.

7. Answer any ***two*** of the following : *2×7=14*

(a) Discuss various methods of signal design.

(b) What are the various approaches to reduce traffic pollution ?

(c) Briefly describe the design of a bus-bay.