Code: CE7T4C

IV B.Tech - I Semester – Regular/Supplementary Examinations JANUARY - 2022

TRAFFIC ENGINEERING
(CIVIL ENGINEERING)

Duration: 3 hours   Max. Marks: 70

PART – A

Answer *all* the questions.   All questions carry equal marks
$$11 \times 2 = 22 \text{ M}$$

1.
   a) Define PCU.
   b) Name any four methods of traffic counts.
   c) What are three E's of traffic regulation?
   d) Give a typical curve which shows the variation of flow and concentration in respect of road traffic.
   e) What is different level of service concept in the HCM manual?
   f) Differentiate between lane markings and object markings.
   g) What is parking turnover?
   h) What are the detrimental effects of traffic on the environment?
   i) Write short note on patrolling.
   j) Define noise pollution.
   k) What are the principles of road safety audit?

PART – B

Answer any *THREE* questions.   All questions carry equal marks.

$$3 \times 16 = 48 \text{ M}$$

2. a) Name and explain various automatic devices for detecting traffic volume.   8 M

 b) What are different methods of conducting speed studies and explain them in detail.   8 M

3. a) Explain traffic laws and also explain how do you regulate the speed?   8 M

 b) What are different factors that affect highway capacity and explain them?   8 M

4. a) What is the principle of tidal flow operation and explain in detail?   8 M

 b) Explain different travel demand management techniques adopted for controlling traffic flow.   8 M

5. a) Mention different types of traffic signs and mention their specifications.   8 M

 b) What are the different measures of reducing air pollution and noise pollution due to traffic? Explain them in detail.

                                             8 M

6. a) What are different types of road accidents give the causes and also mention the measures to reduce it. 8 M

b) It is observed that on an average a vehicle driver drives 5000 km in a year. The probability of having an accident is 100 per 100 million vehicle km. What is the probability of a driver having at least 2 accidents during his driving extending to 25 years? 8 M