

Code: CE7T4C

IV B.Tech - I Semester – Regular Examinations – October - 2017

**TRAFFIC ENGINEERING
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11 x 2 = 22

1.

- a) Differentiate spot speed from design speed.
- b) Name any three levels of measurement of vehicle flow.
- c) Differentiate short term counts from long term counts.
- d) What are different types of highway capacities?
- e) What is peak hour factor?
- f) Give a typical relation between volume and speed of traffic.
- g) Name the instrument that is used for measuring spot speeds.
- h) Define parking index.
- i) Name the instruments used to measure noise pollution.
- j) Name the types of carriageway markings.
- k) What is the principle of road safety audit?

PART – B

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

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

2. a) What are the objectives of speed studies and explain how they are conducted? 8 M
- b) Name the statistical methods adopted for analysis of speed data. 8 M
3. a) What are different regulations concerning the drivers for regulation of traffic? Explain them. 8 M
- b) 25 spot speed observations were taken were as under:
50, 40, 70, 55, 45, 30, 75, 60, 45, 50, 45, 55, 40, 60, 30, 70, 35, 50, 45, 40, 63, 43, 55, 40, 50 kmph. Calculate:
i) time mean speed ii) space mean speed. 8 M
4. a) Name different parking surveys and explain them in detail. 8 M
- b) Mention the situations where multi storey car parking facility is recommended and give design standards. 8 M
5. a) What are different methods to reduce air pollution due to traffic and explain in detail? 8 M

b) Write in detail about necessity of overhead signs. 8 M

6. a) What are different types of pavement markings? Give standards and specifications for road markings. 8 M

b) It is observed that on an average a vehicle driver drives 4000 Km in an 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