

EIGHT SEMESTER
MID SEMESTER EXAMINATION

B.TECH. [Civil Engineering]
(March 2019)

CE420: TRAFFIC ENGINEERING

Time: 1:30 Hours

Max. Marks: 30

Note: Answer any FIVE questions. All questions carry equal marks.

- Q.1 Discuss the reasons of collecting traffic data.
- Q.2 Briefly describe different types of traffic studies conducted with their intended purposes.
- Q.3 Explain the concept of speed limit. How speed limit is determined? Show it with the help of a neat sketch.
- Q.4 The free flow speed of vehicles on a road section is 80 km/h and the jammed density is 240 veh/km. Estimate the following:
i) Traffic density under maximum traffic flow condition
ii) Possible maximum flow rate for the road section
iii) Average speed of vehicles at maximum traffic volume
- Q.5 The speed-density relationship for a study stretch of a road is given by $V=40-0.5K$, where V is speed in km/h and K is density of vehicles in veh/km. Determine the capacity of the road, mean density and mean speed. Draw the three sketches with these traffic parameters and label them.
- Q.6 Write brief notes on the following:
i) Level of Service
ii) Shock wave