

M.E. First Semester (Civil Engineering (Transpo. Engg & Manag.) (New CGS)

13103 : Traffic Engineering and Field Studies : 1 SFTR 1

P. Pages : 1

AU - 3330

Time : Three Hours



Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Answer **any five** questions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answer necessary with the help of neat sketches.
 5. Use of pen Blue/Black ink/refill only for writing book.

1. Attempt **any two**.
 - a) Explain the terms
i) PCU ii) AADT 8
 - b) Explain in brief road users characteristics of traffic. 8
 - c) Explain in brief vehicular characteristics of traffic. 8
2. a) Define the terms 8
- Spot speed
- Space mean speed
- Time mean speed
b) Explain in brief 8
- O-D study - speed and delay study
3. Attempt **any two**.
 - a) Explain in brief – the various design factors that are to be considered in rotary intersection design. 8
 - b) Explain in brief – traffic regulations and control. 8
 - c) Explain in brief – signal system and coordination. 8
4. a) The average normal flow of traffic on cross roads A and B during design period are 400 and 250 PCU per hour, the saturation flow values on these roads are estimated as 1250 and 1100 PCU per hour resp. The all red time replaced for pedestrian crossing is 12 sec. Design two phase traffic signal by Webster's method. 8
b) Explain with neat sketches – various types of conflicts at intersections in traffic movement. 8
5. Attempt **any two**.
 - a) Define Highway capacity? State the factors affecting capacity & LOS. 8
 - b) Write the equation for practical capacity of Rotary and explains the terms involved. 8
 - c) State the advantages & limitation of Rotary. 8
6. a) Explain in brief 8
- LOS
- Critical hour concept
b) Explain the causes of generation of noise due to road traffic. 8
