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Question Paper Code : 20235

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2018.

Seventh Semester

Civil Engineering

CE 6006 — TRAFFIC ENGINEERING AND MANAGEMENT

(Regulations 2013)

(Common to PTCE 6006 – Traffic Engineering and Management for
B.E. (Part-Time) Sixth Semester – Civil Engineering – Regulations 2014)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Write any one road user characteristic with Indian Road Congress (IRC) standards.
2. What do you mean by the term PIEV theory?
3. List out various traffic surveys to be conducted for traffic studies.
4. Define "Spot speed and Running speed" in traffic speed studies.
5. List out any four demerits of a rotary intersection in traffic engineering.
6. Differentiate between intersection and interchange in traffic design.
7. What is meant by coordination of signals in traffic signal control?
8. Why should the promotion of non-motorized transport is vital?
9. List out various Travel demand management (TDM) techniques in traffic engineering.
10. What do you mean by the term "Traffic Segregation"?

PART B — (5 × 13 = 65 marks)

11. (a) Write in brief the main Urban Traffic Problems with regard to Chennai New city.

Or

- (b) Write in brief importance of Land-Use and Transport Interaction in transportation planning.

12. (a) Write in brief the different methods of Origin-Destination (O-D) studies with its significance.

Or

- (b) Discuss in brief the 'Level of Service' Concept in design of service level for urban roads.

13. (a) Write with neat sketches of Pedestrian facilities and cycle tracks in urban areas as per IRC standards.

Or

- (b) A dual carriageway runs north and south with a single way on east and west. There are exclusive right-turn lane in each of the northern and southern approaches. The central reservation is 1.5 m to accommodate right turns. The radius of right turning stream is 15.5 m. The width of east-west way is 13 m. Design a fixed cycle 3 phase signal with an exclusive phase for right turners from north and south. Draw the phasing and timing diagram as well. The design hour traffic volumes in PCU's are given in the table 13 (b) Assume all other relevant data.

Table 13 (b) Design Hour Traffic Volume in PCU's/hour

From	N			E			S			W		
To	E	S	W	S	W	N	W	N	E	N	E	S
Flow in PCU's / hour	50	990	260	45	530	125	165	960	210	65	510	140

14. (a) Explain in detail any two causes of road accidents and corresponding preventive measures.

Or

- (b) Write in brief the air pollution hazards and its abatement measures in traffic and Environmental impact study.

15. (a) Write in brief the traffic regulatory measures commonly implemented in traffic Management treatment as per IRC standards with neat sketches.

Or

- (b) Write short notes on the following :

- (i) Intelligent Transportation System (6)
 (ii) Congestion and Parking Pricing. (7)

PART C — (1 × 15 = 15 marks)

16. (a) Explain in brief the significance of promotion and integration of Mass/Public Transportation in urban areas in specific.

Or

- (b) Write in detail the relevance of Integrated Planning of Town, Country, Regional and all Urban Infrastructure towards inclusive and sustainable development.