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**Question Paper Code : 70255**

B.E/B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

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) – Civil Engineering – Sixth Semester)

(Regulations 2014)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

PART A — (10 × 2 = 20 marks)

1. What is meant by 'PIEV theory' in sight distance analysis?
2. List out any four major urban traffic problems in Indian cities.
3. What is meant by 'level of service' in traffic analysis?
4. Draw a 'typical parking inventory' diagram with all its vital parts.
5. List out any four merits of a rotary intersection in traffic engineering
6. Write any four major purpose of provision of channelization in traffic control.
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 the various travel demand management techniques.
10. What are the applications of intelligent transport system?

PART B — (5 × 13 = 65 marks)

11. (a) Write briefly any four major urban traffic problems in India with sustainable solutions.

Or

- (b) Write short notes on the following:
- (i) PIEV theory with its significance
  - (ii) Road user characteristics.

12. (a) Explain in detail different methods of origin destination studies.

Or

- (b) What are speed and delay surveys? Explain in detail.

13. (a) A two-phase traffic signal is to be installed at a right angled crossing of two city streets. The site is 'average' and the approaches are 16 metres wide between kerbs. The design hour traffic volumes in PCU's are given in the table 13 (a).

Table 13 (a) Design Hour Traffic Volume in PCU's per hour

From	N		E		S		W					
To	E	S	W	S	W	N	W	N	E	N	E	S
Flow in PCU's per hour	485	853	209	297	935	565	362	964	560	572	690	408

Design the two phase signal with its timing and phasing diagram by making suitable assumption.

Or

- (b) Explain in brief with neat diagrams the design elements of rotary type intersections with IRC standards.

14. (a) Discuss in brief the ill effects of air and noise pollution with its remedies in traffic and environment.

Or

- (b) Explain the brief various major root causes for road accidents and prevention methods.
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) What is the role of road marking? Discuss its types with diagram. (15)

Or

- (b) Discuss briefly with neat sketches collision and condition diagrams. (15)

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