

Reg. No.

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B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2023

Eighth Semester

CE16010 – Traffic Engineering and Management*(Civil Engineering)***(Regulation 2016)****TIME: 3 HOURS****MAX. MARKS: 100****PART- A (10x2=20Marks)**

(Answer all Questions)

1. Draw Speed – Flow Diagram.
2. What is the Maximum length of vehicle recommended by IRC ?
3. Define running speed.
4. What is meant by ADT?
5. What is meant by merging and diverging of traffic stream?
6. Differentiate at-grade and grade separated intersection.
7. What do you mean by 'Travel Demand Forecasting'?
8. List the 3E's in road safety.
9. What do you mean by 'Tidal Flow Operation'?
10. What do you mean by 'Zebra Crossing'?

PART- B (5x 16=80Marks)**Marks**

- 11. (a)** Calculate Annual Average Daily Traffic for the following data: **(16)**
 $ADT_{May} = 9,989$ PCU; Average Petrol Sales = 112,537 liters; Petro Sales (May) = 102,705 liters
- (OR)**
- (b)** Write briefly on 'Human Factors' influencing traffic design. **(16)**
- 12. (a)** Explain Classified Volume Count Survey in detail with diagrams. **(16)**
- (OR)**
- (b)** Explain Origin-Destination Survey in detail with diagrams. **(16)**

- 13. (a)** Calculate Q_p for a rotary intersection: (assume $e_1 = e_2 = 10$ m): **(16)**

Approach	Left Turning			Straight			Right Turning		
	Car	Com	T/W	Car	Com	T/W	Car	Com	T/W
North	220	50	120	180	60	100	250	60	100
East	180	60	80	220	50	120	200	40	120
South	250	80	100	150	50	90	160	70	90
West	200	50	100	250	100	150	150	50	80

PCU Values: Car: 1.0; Com: 2.8; T/W: 0.75

(OR)

- (b)** Explain briefly coordinated signal with neat sketch. **(16)**

- 14. (a)** Explain briefly about Road Safety Audit (RSA). What do you mean by Pro-active RSA? **(16)**

(OR)

- (b)** Explain the causes and effects of air and noise pollution. **(16)**

- 15. (a)** List the Travel Demand Management Techniques (TDM) and briefly explain any five. **(16)**

(OR)

- (b)** Summarize Traffic Management Techniques. Explain the concept of Exclusive Cycle Track with reference to Chennai. **(16)**
