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**Question Paper Code: 49111**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Elective

Civil Engineering

14UCE911 - TRAFFIC ENGINEERING AND MANAGEMENT

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Volition is the will to react to a
  - Environment
  - Vehicle
  - Situation
  - Person
- The line of sight of an acute or clear vision cone is
  - 60° to 70°
  - 20° to 50°
  - 10° to 12°
  - 3° to 10°
- AADT is expanded as
  - Average Annual Daily Traffic
  - Annual Average Daily Traffic
  - Annual Accumulated Daily Traffic
  - Accumulated Annual Daily Traffic
- The number of vehicles parked in a particular area over a given period of time, measured in vehicles per day is
  - Parking accumulation
  - Parking duration
  - Parking index
  - Parking volume
- Danger signs are also known as
  - Prohibitory signs
  - Indication signs
  - Mandatory signs
  - Cautionary signs

6. Traffic delays can be substantially reduced upto 12% when compared to fixed time plans in \_\_\_\_\_ systems.
- (a) EQUISAT                      (b) PLIDENT                      (c) SCOOT                      (d) SPG
7. An arrangement in which lanterns are placed alternatively on either side of carriage way
- (a) Staggered                      (b) Central                      (c) Opposite                      (d) Single-sided
8. Acceptable noise level for passenger vehicle with seating not more than 9 persons including driver is \_\_\_\_\_ dB(A).
- (a) 84                      (b) 89                      (c) 82                      (d) 91
9. For a one 2 way street and one 1 way street the point of conflict of a vehicles at a junction is
- (a) 16 points                      (b) 7 points                      (c) 4 points                      (d) 2 points
10. Which movement is useful for planning a bye pass?
- (a) Internal to Internal                      (b) Internal to External  
(c) External to Internal                      (d) External to External

PART - B (5 x 2 = 10 Marks)

11. Define PIEV theory.
12. Differentiate aggregate and disaggregate model.
13. List any four advantages of traffic signals.
14. Enlist the factors which determines skid resistance.
15. Write any two advantages of closing side streets.

PART - C (5 x 16 = 80 Marks)

16. (a) Discuss in detail about the vehicle characteristics with its equations and its relevance in traffic engineering. (16)

Or

- (b) (i) Write in short the significance and scope of traffic engineering. (8)
- (ii) Explain rolling and air resistance. (8)
17. (a) Enumerate the different methods of carrying out traffic volume studies. (16)

Or

(b) Explain the factors affecting capacity and level of service. (16)

18. (a) Explain in detail, the various types of road markings commonly used with neat sketches. (16)

Or

(b) Elaborate the functions and requirements of traffic control devices. (16)

19. (a) Write briefly the different factors causing accidents. (16)

Or

(b) Discuss the environmental impact of traffic pollution. (16)

20. (a) Write short notes on few of the traffic management measures: (i) Tidal flow operation (ii) Exclusive bus lane (iii) Restriction on turning movement (iv) Traffic calming. (16)

Or

(b) Write short notes on Road pricing and requirements of good pricing system. (16)

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