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**Question Paper Code: 41182**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

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 torque developed at the fly wheel is converted to a torque at the
  - Rear axle
  - Front axle
  - Engine
  - Wheel
- \_\_\_\_\_ is the average speed maintained by a vehicle over a given course while the vehicle is moving.
  - Running speed
  - Journey speed
  - Spot speed
  - Instantaneous speed
- The area under the parking accumulation curve during a specified period is called
  - Parking volume
  - Parking load
  - Parking index
  - Parking turnover
- Danger signs are also known as
  - Prohibitory signs
  - Indication signs
  - Mandatory signs
  - Cautionary signs

6. \_\_\_\_\_ is the destination of various sections of highway for different values of safe speed limits.
- (a) Speed zoning (b) Safe speed  
(c) Speed limits (d) Speed of traffic
7. The statistical method current being applied in accident research is
- (a) Hysteresis method (b) Adhesion method  
(c) Regression method (d) Pedestrian method
8. Which one of the following is not the major component of exhaust gas?
- (a) Carbon dioxide (b) Unburnt petrol  
(c) Oxides of nitrogen (d) Oxygen
9. TSM stands for
- (a) Transportation system management (b) Traffic survey management  
(c) Travel speed management (d) Traffic signal management
10. \_\_\_\_\_ is a method of road user taxation, charging the users of congested road.
- (a) Road pricing (b) Road taxation  
(c) Congestion cost (d) Road maintenance cost

PART - B (5 x 2 = 10 Marks)

11. Define PIEV theory.
12. Illustrate the need of origin destination survey?
13. List out the traffic warrants.
14. What are the causes for traffic related noise generation?
15. Write any four disadvantages of one way street system.

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) Explain about the urban traffic problems in India. (16)
17. (a) Write a brief notes on: (i) Spot speeds (ii) Journey speeds and delays (iii) Pressure contact tubes (iv) Enoscope. (16)

Or

(b) Write a brief note on Parking surveys. (16)

18. (a) Classify the types of traffic signals and explain about it. (16)

Or

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

19. (a) Enumerate the various factors to determine the skid resistance. (16)

Or

(b) (i) Describe about the various types of pollutants that are contributed by traffic to air Pollution. (8)

(ii) Explain the different measures to reduce air pollution due to traffic. (8)

20. (a) Explain in detail about some of the well-known traffic management measures. (16)

Or

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

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