Reg. No. : | | | | | | | | | | |

Question Paper Code: 49111

B.E. / B.Tech. DEGREE EXAMINATION, NOV 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)

1. The mean speed of slow moving vehicle like cycle is

   (a) 15.63 K.M.P.H (b) 3.78 K.M.P.H
   (c) 12.24 K.M.P.H (d) 4.89 K.M.P.H

2. The torque developed at the fly wheel is converted to a torque at the

   (a) Rear axle (b) Front axle
   (c) Engine (d) Wheel

3. _____ is the average speed maintained by a vehicle over a given course while the vehicle is moving.

   (a) Running speed (b) Journey speed
   (c) Spot speed (d) Instantaneous speed

4. The number of vehicles parked in a particular area over a given period of time, measured in vehicles per day is

   (a) Parking accumulation (b) Parking duration
   (c) Parking index (d) Parking volume

5. Danger signs are also known as

   (a) Prohibitory signs (b) Indication signs
   (c) Mandatory signs (d) 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. 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. 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 rolling resistance.

12. Differentiate aggregate and disaggregate model.

13. List any four advantages of traffic signals.

14. Enlist the factors which determines skid resistance.

15. Identify the essential constituents of the electron gun.

PART - C (5 x 16 = 80 Marks)

16. (a) Explain the factors affecting road user characteristics. (16)

Or

(b) (i) Write in short the significance and scope of traffic engineering. (8)

(ii) Explain rolling and air resistance. (8)

17. (a) Write a brief notes on: (i) Spot speeds (ii) Journey speeds and delays (iii) Pressure contact tubes (iv) Enoscope. (16)

Or

(b) Explain the factors affecting capacity and level of service. (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) Write briefly the different factors causing accidents. (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) Briefly discuss about the constructional features of electron gun used for generating an electron beam in EBM. (16)

Or

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

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