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Question Paper Code: 49111

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

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. Volition is the will to react to a

    (a) Environment   (b) Vehicle
    (c) Situation   (d) Person

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 area under the parking accumulation curve during a specified period is called

    (a) Parking volume   (b) Parking load
    (c) Parking index   (d) Parking turnover

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. An arrangement in which lanterns are placed alternatively on either side of carriage way

    (a) Staggered   (b) Central   (c) Opposite   (d) Single-sided

9. TSM stands for

    (a) Transportation system management   (b) Traffic survey management

    (c) Travel speed management   (d) Traffic signal management

10. 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

PART - B (5 x 2 = 10 Marks)

11. Define PIEV theory.

12. Differentiate aggregate and disaggregate model.

13. List out the traffic warrants.

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 about the urban traffic problems in India.   (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) Write a brief note on Parking surveys. (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) Briefly discuss about the constructional features of electron gun used for generating an electron beam in EBM. (16)

Or

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

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