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Question Paper Code: 49111

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

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)

- The mean speed of slow moving vehicle like cycle is
 - 15.63 K.M.P.H
 - 3.78 K.M.P.H
 - 12.24 K.M.P.H
 - 4.89 K.M.P.H
- 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 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. 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) 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) 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) 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) Explain in detail about some of the well-known traffic management measures. (16)
