A   Reg. No. :

Question Paper Code: 59105

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

Elective

Civil Engineering

15UCE905 - Traffic Engineering and Management

(Regulation 2015)

Duration: Three hours   Maximum: 100 Marks

Answer All Questions

PART A - (10x 1 = 10 Marks)

1. Traffic Flow is   CO1- R

    (a) Static   (b) Dynamic

    (c) Both Static and Dynamic   (d) None of the above

2.   The distance between two consecutive vehicles is called   CO1- U

    (a) Space Headway   (b) Time Headway   (c) Jam Density   (d) Traffic flow

3. Coordinated Signal System is   CO2- R

    (a) 3-phase system   (b) Linking adjacent signals

    (c) 2-phase system   (d) None of these

4. FLEXIPROG system is a   CO2- U

    (a) Flexible program   (b) Flexible possible

    (c) Flexible Progressive   (d) Traffic analysis

5. The most important objective of Traffic Engineering is   CO3- R

   (a) consider pedestrians as obstruction   (b) Reduce accidents

   (c) Increase traffic   (d) Provide high speed road

6. In India design speed at rotary is   CO3- R

   (a) 30 kmph   (b) 40 kmph   (c) 50 kmph   (d) 60 kmph

7. The most likely cause of accidents is   CO4- U

   (a) Impatient driving   (b) Slow speed

   (c) pedestrians crossing road   (d) Cattle crossing road

8. Pedestrians can cross the road   CO4- R

   (a) Anywhere   (b) Near signals

   (c) At zebra crossing   (d) None of these

9. Traffic System Management is   CO5- U

   (a) Short term measures to use transport facilities   (b) Long term demand

   (c) Trip assignment method   (d) None of these

10. "PCU" means"   CO5- R

   (a) Passenger Car Units   (b) Particular Car Units

   (c) Passenger Car Utility   (d) Passenger Capacity Units

PART – B (5 x 2= 10Marks)

11. Define Traffic Flow.   CO1- U

12. What is meant by Optimal Cycle Time in a signal system?   CO2- U

13. Give two examples of significance testing for Traffic Engineering.   CO3- U

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14. Mention the types of road accidents. CO4- U

15. Mention some of the traffic management measures. CO5- U

PART – C (5 x 16= 80Marks)

16. (a) Derive an equation for car following theory. CO1-U (16)

Or

(b) Discuss the applications of queuing theory to traffic engineering problems. CO1 -Ana (16)

17. (a) What are the advantages and disadvantages of traffic signals? Explain the types of coordinated signal systems. CO2 -U (16)

Or

(b) Discuss the objectives and methods of Area Traffic Control. CO2 -Ana (16)

18. (a) Describe the various methods of traffic volume survey. CO3- App (16)

Or

(b) Explain Rotary Intersection Design. CO3- U (16)

19. (a) Give an account of the causes and types of road accidents. CO4-U (16)

Or

(b) Bring out the factors that cause accidents and skid resistance. CO4 -Ana (16)

20. (a) Discuss the various Traffic Management Measures. CO5- Ana (16)

Or

(b) Explain the factors affecting Capacity and Level of Service. Also add a note on the different Levels of Service. CO5- U (16)

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