

**A**

Reg. No. :

--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 59105**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2022

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
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? CO2 -U (16)  
 Explain the types of coordinated signal systems.
- 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)

