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Question Paper Code : 91269

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2019

Seventh Semester

Civil Engineering

CE 6006 – TRAFFIC ENGINEERING AND MANAGEMENT

(Regulations 2013)

(Common to PTCE 6006 – Traffic Engineering and Management for B.E.

Part-Time – Sixth Semester – Civil Engineering – Regulations 2014)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A

(10×2=20 Marks)

1. What is meant by 'PIEV theory' in sight distance analysis ?
2. List out any four major urban traffic problems in Indian cities.
3. Differentiate between journey and running speed in traffic analysis.
4. Draw a 'typical parking inventory' diagram with all its vital parts.
5. What is meant by the term VMS in traffic signals ?
6. What is meant by coordination of signals in traffic signal design ?
7. List out any 4 benefits of integrating various public transportation.
8. List out any four environmental ill-effects of traffic.
9. List it out any four travel demand management techniques in traffic management.
10. Define Traffic System Management (TSM).

PART – B

(5×13=65 Marks)

11. a) Write in detail the vehicle performance characteristics with Indian Roads Congress (IRC) standards.

(OR)

- b) Write the significance of integrated planning of town, country regional and urban infrastructure as well as for sustainable development in all segments of society.



12. a) Explain in brief the various level of services as per Indian Roads Congress (IRC) Standards for arterial roads and down town streets.

(OR)

b) Explain in brief the parking survey methods which are commonly used in traffic planning of metro cities.

13. a) Explain in brief with neat diagrams the various types of signs and its purpose with IRC standards.

(OR)

b) A two-phase traffic signal is to be installed at a right angled crossing of two city streets. The site is "average" and the approaches are 16 meters wide between curbs. The design hour traffic volumes in PCU's are given in the table 13 (b).

Table 13 (b) Design Hour Traffic Volume in PCU's per hour

| From | N | | | E | | | S | | | W | | |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| To | E | S | W | S | W | N | W | N | E | N | E | S |
| Flow in PCU's per hour | 497 | 855 | 209 | 255 | 939 | 556 | 366 | 964 | 560 | 577 | 680 | 408 |
| | | | | | | | | | | | | |

Design the two phase signal with its timing and phasing diagram by making suitable assumption.

14. a) Discuss in brief the ill effects of air and noise pollution with its remedies in traffic and environment.

(OR)

b) Explain in brief various major root causes for road accidents and prevention methods.

15. a) Write short notes on 'Congestion Pricing and Traffic Segregation Methods' in traffic management.

(OR)

b) Write in brief the traffic regulatory management measures normally applied to handle the traffic problems.

PART - C

(1×15=15 Marks)

16. a) Discuss in brief any two major urban traffic problems in Indian cities and suggest suitable sustainable possible solution for the same.

(OR)

b) Write in brief various action plan to be implemented for promotion and integration of Mass transport and Non-Motorized transport in a metro city like Chennai.