

Roll No.

CE-7102 (GS)
B.E. VII Semester
Examination, November 2018
Grading System (GS)
Traffic Engineering
Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

iii) Assume suitable data if found missing.

1. a) Explain PIEV theory of reaction time of driver.
b) Discuss different characteristics of vehicle related to rest condition.
2. a) Explain different Road User's characteristics affecting their performance.
b) Discuss various characteristics of Vehicle related to moving condition.
3. a) How moving Car survey is carried out? Explain analysis of data obtained.
b) How origin and destination Survey is done by different method?
4. a) Write a note on:
i) Practical capacity of road
ii) Level of service
b) How Traffic volume survey is carried out? Explain presentation of data obtained.

5. a) An intersection controlled by traffic signals is formed by two roads running North to South and East to West. There is a heavy turning movement of 500 vehicles per hour from South to East. The flow from North to South is 800 vehicles per hour through an approach width at stop line of 8m. The cycle time is 70 seconds and the effective green time for the flow from the North is 32 seconds. The effective right turning saturation flow is 450 vehicles per hour for an opposing flow of 800 vehicles per hour, related to a minimum head-way of 2.5 seconds for the right turning stream. Calculate the early cut off period required to allow for the right-turning movement.
b) Explain merits and demerits of one way street.
6. a) Discuss different methods of Coordination of signals at different intersections.
b) Write a note on:
i) Traffic actuated signal
ii) Pedestrian signal
7. a) Explain design of street lighting system.
b) How Light is distributed by various methods?
8. a) Write a note on:
i) Utilization factor
ii) Maintenance factor
b) Discuss the effect of height and projection of Lamp on length of shadow through neat sketches. Explain other factors affecting lighting of road.
9. a) Explain condition diagram and collision diagram.
b) Explain importance of Accident Survey in India and Abroad.
10. a) Discuss merits and demerits of Mass Transportation.
b) Discuss various features of Mass Transportation in details.