**Question Paper Code : 11165**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2012.

Seventh Semester

Civil Engineering

CE 2026/CE 701 — TRAFFIC ENGINEERING AND MANAGEMENT

(Regulation 2008)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State the components of Traffic Engineering.
2. In a braking test, vehicle travelling at a speed of 80 kmph was stopped by applying brakes fully and the skid marks were 7.8 m. Determine the average skid resistance of the pavement surface.
3. Define 'PCU'.
4. Specify the minimum footway width recommended by IRC for urban roads in residential and industrial zones.
5. List out any four regulatory signs.
6. State the factors governing the spacing of lanterns in street lighting.
7. What are the advantages of channelised intersections?
8. What are the drawbacks of a conventional round about?
9. What is meant by 'tidal flow operation' in traffic management?
10. Mention the advantages of providing exclusive bus bays.

PART B — (5 × 16 = 80 marks)

11. (a) Explain the various vehicular characteristics which affect the road design and traffic performance.

Or

(b) Describe the factors influencing the skidding resistance of road surfaces.

12. (a) Enumerate the different methods of carrying out traffic volume studies. Briefly explain the principle of each method.

Or

(b) Explain briefly the various aspects investigated during parking studies. What are the uses of these studies?

13. (a) Explain the various types of traffic signals and their functions. How are the signal timings decided?

Or

(b) With neat sketches, explain the various types of road markings commonly used.

14. (a) (i) Discuss the various factors to be considered in rotary intersection design. (8)

(ii) Brief the advantages and limitations of grade separated intersections. (8)

Or

(b) Explain the arrangement of half and full clover leaf grade separated intersections. Draw the diagrams showing the traffic flow.

15. (a) Explain any two methods of forecasting traffic conditions for a peri-urban area.

Or

(b) Explain the applications of ITS in traffic management with reference to Indian conditions.