Reg. No. : ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Question Paper Code: 31166

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Elective

Civil Engineering

01UCE911 – TRAFFIC ENGINEERING AND MANAGEMENT

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What is mean by channelization?

2. What do you understand cone of vision?

3. What do you understand the term collision diagram?

4. Define spot speed? and it uses

5. Define the term PCU.

6. List out the classification of grade intersection.

7. List out the different types of road marking.

8. What are the different methods of street lighting arrangements?

9. Define traffic calming.

10. List out any four uses of ITS.

11. (a) Explain in detail the various components of traffic engineering. (16)

Or

(b) What is skidding? How is skid resistance determined? Describe the factors affecting skidding. (16)

12. (a) What is journey speed? Describe the various methods of determining journey speed. (16)

Or

(b) In the context of basic principles of traffic flow, define the terms speed, flow and density. Explain their relationships using neat sketches. (16)

13. (a) Describe the procedure of designing a traffic signal with two vehicular phases. Clearly state the assumptions and formula you will use for the design. (16)

Or

(b) Design a two phase signal for a junction with road widths of 5.5m and 6m in N-S and E-W directions respectively. Design flows from north, south, east and west are 1200, 850, 860 and 1020 PCU/h. Assume necessary data. (16)

14. (a) Draw neat sketches and describe any five types of grade separated interchanges. (16)

Or

(b) What is channelization of intersections? State its purpose. Describe any three ways of channelization traffic flows at an intersection. (16)

15. (a) Differentiate between transport system management, traffic management and travel demand management. What are the common methods of travel demand management. (16)

Or

(b) Describe the following traffic management methods: turning movement restrictions, exclusive bus lanes and tidal flow operations. (16)

_____

31166