23242

3 Hours / 70 Marks   Seat No.

Instructions :   (1)   All Questions are *compulsory.*

(2)   Answer each next main Question on a new page.

(3)   Illustrate your answers with neat sketches wherever necessary.

(4)   Figures to the right indicate full marks.

(5)   Assume suitable data, if necessary.

(6)   Use of Non-programmable Electronic Pocket Calculator is permissible.

(7)   Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1.   Attempt any FIVE of the following :   **5 × 2 = 10**

(a)   Define Traffic Engineering.

(b)   List the road characteristics to be considered in traffic engineering.

(c)   Define Traffic Volume Study.

(d)   Define Road Signs.

(e)   Enlist the types of traffic signals.

(f)   Define Design Speed.

(g)   Define road markings.

2.   Attempt any THREE of the following :   **3 × 4 = 12**

(a)   Enlist the necessities of origin and destination study.

(b)   Explain the points to be considered while designing the road sign.

(c)   Explain the uses of various carriage way markings.

(d)   Explain regulatory road signs with respect to definition, types and uses.

3. **Attempt any THREE of the following :** **3 × 4 = 12**

 (a) Compare the fixed time signals with manually operated signals.

 (b) Enumerate the advantages and disadvantages of grade separated intersection.

 (c) Describe the factors affecting visibility of road at night time.

 (d) Define street lighting. State necessity of street lighting.

4. **Attempt any THREE of the following :** **3 × 4 = 12**

 (a) Discuss the factors affecting selection of type of road side trees.

 (b) Explain various points to be considered for road safety.

 (c) Explain the method of recording and reporting of an accident.

 (d) Enlist the causes of road accidents.

 (e) Explain the legislation & law enforcement, education in road accident studies.

5. **Attempt any TWO of the following :** **2 × 6 = 12**

 (a) Explain the method of representing traffic volume count with neat sketch.

 (b) Draw the following types of road signs :

  (1) STOP Sign (2) GIVE WAY Sign

  (3) No Parking Sign (4) Hospital Sign

  (5) Speed limit Sign (6) Compulsory Left turn Sign

 (c) Explain the necessities & methods of parking study.

6. **Attempt any TWO of the following :** **2 × 6 = 12**

 (a) Explain with neat sketch :

  (i) Rotary Islands (ii) Channelizing Islands

 (b) Explain with sketch the condition diagram and the symbols commonly used along with typical condition diagram.

 (c) Draw the following road intersections showing traffic flow pattern on it :

  (i) Cloverleaf Pattern (ii) Trumpet type

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