

22507

23124

3 Hours / 70 Marks

Seat No.

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- 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 :

10

- (a) Enlist the essential road user's characteristics to be considered in traffic engineering.
- (b) List out the scope of traffic engineering.
- (c) Enlist the factors affecting reaction time of driver.
- (d) Enlist the methods of origin and destination study.
- (e) Enlist the types of traffic signals.
- (f) Define :
 - (i) Traffic control devices
 - (ii) Road signs
- (g) Write any two points to be considered while erecting road signs.



- 2. Attempt any THREE of the following : 12**
- (a) Explain the uses of various carriageway markings.
 - (b) Explain Manual method of collecting traffic volume count data.
 - (c) Explain regulatory road signs with respect to definition, types and uses.
 - (d) Define road markings. Give classification of road markings.
- 3. Attempt any THREE of the following : 12**
- (a) Define segregation. Give purposes of segregation of traffic.
 - (b) Suggest the methods adopted for protection of tress.
 - (c) Enlist the types of traffic islands. Describe any one with neat sketch.
 - (d) Define street lighting. State necessity of street lighting.
- 4. Attempt any THREE of the following : 12**
- (a) Explain the factors affecting selection of type of trees.
 - (b) Define collision accidents. Explain the types of collision accidents.
 - (c) Describe condition diagram with the help of symbols of features for it.
 - (d) Justify the need of legislation regarding safety.
 - (e) Enlist the causes of road accidents.
- 5. Attempt any TWO of the following : 12**
- (a) Explain cumulative speed distribution method of representation of spot speed study.

- (b) Draw following types of road signs :
- (i) Narrow bridge
 - (ii) No stopping
 - (iii) Left Hair pin bend
 - (iv) 3.5 m height limit
 - (v) Max. speed 50 km.
 - (vi) One way
- (c) Describe the procedure of traffic volume count on any road intersection. Also write the method of representation of traffic volume count data.

6. Attempt any TWO of the following :

12

- (a) Describe Trial cycle method of computing signal time (General Signal design principles).
 - (b) Draw and explain any 6 types of Intersection at grade.
 - (c) Suggest preventive measures for avoiding road accidents.
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