

22507

24225

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--	--

- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.
 - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.

Marks

1. **Attempt any FIVE of the following :**

10

- (a) Define Traffic Engineering.
- (b) Discuss Road user's characteristics in Traffic Engineering.
- (c) List different types of Traffic Studies.
- (d) Define the term : Traffic Marking.
- (e) Define Traffic Signal.
- (f) List factors affecting Reaction Time.
- (g) Classify Traffic Markings.

2. **Attempt any THREE of the following :**

12

- (a) Describe the necessity of origin and destination study.
- (b) Draw following Traffic Signs :
 - (i) U-Turn Prohibited
 - (ii) Hospital
 - (iii) Narrow Bridge
 - (iv) Height limit 3.5 m
- (c) Explain points to be considered while designing road sign.
- (d) Draw any two each of Mandatory signs and Warning signs.



- 3. Attempt any THREE of the following : 12**
- (a) Describe channelizing island with neat sketch.
 - (b) State advantages and disadvantages of traffic signals.
 - (c) Define street lighting. State necessity of street lighting.
 - (d) Write the objectives of road arboriculture.
- 4. Attempt any THREE of the following : 12**
- (a) Explain the factors affecting selection of type of trees in arboriculture.
 - (b) Suggest measures to prevent road accidents.
 - (c) Explain steps involved in reporting and recording of an accident.
 - (d) Enumerate causes of road accidents.
 - (e) Discuss Legislation and Law Enforcement Education in Road Accident Study.
- 5. Attempt any TWO of the following : 12**
- (a) Describe the method of spot-speed study on a road section. (Enoscope Method)
 - (b) Explain any six types of road marking commonly used.
 - (c) List methods of origin and destination study. Explain any one method in detail.
- 6. Attempt any TWO of the following : 12**
- (a) Draw and explain any 6 types of Intersection at grade.
 - (b) Explain the following with respect to Road Accidental Studies :
 - (i) Condition diagram
 - (ii) Collision diagram
 - (c) Describe Trial Cycle Method of computing Signal Time. (General Signal design principles)
-