

22507

21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

- 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) List out the factors affecting reaction time of driver.
- (b) Give the essential physical characteristics to be considered in traffic engineering.
- (c) Define the term traffic volume study.
- (d) Define traffic signals.
- (e) Name the traffic control devices.
- (f) List the objectives of traffic engineering.
- (g) Define the term : traffic marking.

2. Attempt any THREE of the following :

12

- (a) Explain origin & destination study of Road section in brief.
- (b) Explain the points to be considered while designing road sign.
- (c) Explain following :
 - (i) Pavement marking
 - (ii) Kerb marking
- (d) With neat sketches shows various type of traffic signs :
 - (i) Stop
 - (ii) Compulsory turn left
 - (iii) School ahead
 - (iv) Hospital

- 3. Attempt any THREE of the following : 12**
- (a) State the various type of traffic islands & explain any one with neat sketch.
 - (b) State the advantages & disadvantages of traffic signals.
 - (c) Explain design factors of highway lightning.
 - (d) Discuss the special maintenance & care required for road side plantation.
- 4. Attempt any THREE of the following : 12**
- (a) State the factors affecting visibility at night.
 - (b) Explain the various measures that may be taken to prevent road accidents.
 - (c) Explain various points to be considered for road safety.
 - (d) State the road user causes of road accidents.
 - (e) Explain steps involved in Accident Studies & Records.
- 5. Attempt any TWO of the following : 12**
- (a) Explain the various objects & application of spot-speed studies.
 - (b) Explain methods of representing traffic volume count with neat sketch.
 - (c) Explain any three types of road marking commonly used.
- 6. Attempt any TWO of the following : 12**
- (a) State necessity of traffic islands and draw neat sketches of pattern of un-channelized & channelized intersection.
 - (b) Define segregation of traffic and state various methods of segregation of traffic.
 - (c) Explain the following with respect to Road accidental studies.
 - (i) Condition diagram
 - (ii) Collision diagram
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