

Total No. of Questions :6]

SEAT No. :

P187

[Total No. of Pages :2

Oct./ BE/ Insem. - 502

B.E. (Civil)

TRANSPORTATION ENGINEERING

(2015 Pattern) (Semester - I)

Time : 1 Hour]

[Max. Marks :30

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4 and Q.5 or Q.6.
- 2) Figures to the right indicate full marks.
- 3) Use of logarithmic tables, slide rule, Molli's charts, electronics pocket calculator and steam tables is allowed.
- 4) Assume suitable data if necessary.
- 5) Neat diagrams must be drawn wherever necessary.

Q1) a) What are the requirements of an ideal alignment? Discuss briefly. [5]

b) Enlist the recommendations of Jayakar Committee report. [5]

OR

Q2) a) Write a note on Road Development Plan Vision 2021. [5]

b) Calculate the length of different categories of roads according to the Lucknow Road Plan based on the 2001 census data.

Total Area of district = 26800 sq km; Total no of towns = 24 [5]

Q3) a) Calculate the safe stopping sight distance for a two-way traffic on a two lane road, if the design speed is 100 Kmph, reaction time is 2.5 sec and Longitudinal coefficient of friction is 0.35 and Transverse coefficient of friction is 0.15. [5]

b) What is Superelevation? Discuss in brief how it is attained in the field. [5]

OR

P.T.O.

Q4) a) Calculate the extra widening of pavement required on a horizontal curve of radius 650 m on a two-lane highway, the design speed being 80 Kmph.

Assume wheel base of vehicle as 6 m. [5]

b) Write notes on: [5]

- i) Camber and
- ii) Pavement Unevenness.

Q5) a) Discuss the various factors which affect the road user characteristics and their effect on traffic performance. [5]

b) Define the following terms: [5]

- i) Spot Speed
- ii) Running Speed
- iii) Space mean speed
- iv) Modal Speed
- v) Time Headway

OR

Q6) a) What are the objectives of carrying out traffic volume survey? [5]

b) With neat sketches show any five types of regulatory traffic signs and mention their function. [5]

