

Total No. of printed pages = 2

CT-505/TE/5th Sem/2017/M

TRANSPORTATION ENGINEERING

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer *all* questions.

1. What is overtaking sight distance on a high-way ?
Derive the expression for calculating overtaking
sight distance. 4+6=10
2. Explain the road development in India and state
the salient features of Nagpur road development
plan. 6+4=10
3. Explain the California Bearing Ratio (CBR)
method for determining the thickness of pavement
layers. 10

[Turn over

4. What do you understand by permanent way in Railway? State the different components of a permanent way and explain the functions of each of the component. $2+4+4=10$
5. Explain the different special consideration of road alignment in hilly areas. Also explain the PIEV theory. $10+5=15$
6. Calculate the safe stopping sight distance for a design speed of 50km/h when —
- (i) Two way traffic on a two lane road.
- (ii) Two way traffic on a single lane road. $5+5=10$
7. What is negative superelevation on a railway track? State cant deficiency and cant excess in case of a railway line. $2+3=5$