53 (CE 502) TREN

2021

TRANSPORTATION ENGINEERING–I

Paper : CE 502

Full Marks : 100

Time : Three hours

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

*Answer **all** questions.*

1. (a) Explain the importance of roads in the
development of any nation.   10

   (b) Explain the history of road development
in India.   10

2. (a) Explain different methods to conduct
origin and destination studies.   10

   (b) Explain different methods to conduct
speed and delay studies.   10

3. (a) What are the desirable properties of road aggregates ?   10

   (b) Derive the expression of setback distance for two-lane road for length of curve greater than sight distance condition.   10

4. (a) Derive the expression for OSD.   10

   (b) Explain IRC methods of flexible pavement design.   10

5. (a) What are the differences between rigid and flexible pavements ?   10

   (b) Design all the geometric elements for NH passing on plain terrain.   10