

Total No. of Questions : 6]

SEAT No. :

P5004

[Total No. of Pages : 2

T.E./Insem.-502
T.E. (Civil)
INFRASTRUCTURE ENGINEERING
(2012 Pattern) (Semester - I)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume Suitable data if necessary.*

Q1) a) Explain the provisions made for infrastructure of roads and highways with reference to 12th five year plan. **[5]**

b) Write short note on necessity of automation in infrastructure projects. **[5]**

OR

Q2) a) Discuss in detail importance of transportation sector in economic development of nation. **[5]**

b) Write short note on Public Private Partnership. **[5]**

Q3) a) What is ballast .State the functions of ballast. **[4]**

b) Explain with a neat labeled sketch, the concept of tilting of rail. **[4]**

c) Draw a neat sketch of right hand turnout and show clearly various parts. **[2]**

OR

Q4) a) Explain the necessity of sleeper in railway track. What are the requirements of good sleeper? **[4]**

b) State and explain any two types of rail joint. **[4]**

c) Define gauge of a railway track. State different gauges in india. **[2]**

P.T.O.

- Q5)** a) Define the term dredging. Explain in brief any two methods used for dredging. [6]
- b) What are the various methods of dewatering system? Explain electro-osmosis method with a neat sketch. [4]

OR

- Q6)** a) Discuss in detail purpose & applications of dredging technique. [5]
- b) Write short note on Tower crane. [5]

