

Code: CE6T5

**III B.Tech - II Semester – Regular/Supplementary Examinations  
March 2020**

**TRANSPORTATION ENGINEERING - II  
(CIVIL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

- a) Write any two functions of Rail.
- b) What is the full form of RDSO, an important division of Indian Railways headquartered at Lucknow?
- c) Write the gauge lengths of Broad gauge and Metro gauge used in India.
- d) Explain composite sleeper index.
- e) Explain Pusher or helper gradient.
- f) What are the standard turnouts prescribed on Indian Railways?
- g) Write the classification of signals.
- h) What are Utility Airports?
- i) What are VASI & PAPI?
- j) Classify the types of fenders.
- k) Compare quay and wharf .

## PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) What do you understand by a railway track or a permanent way? Mention the requirements of an ideal permanent way.

8 M

b) Discuss about rail joints.

8 M

3. a) What are the functions of sleepers in a railway track? What are the requirements of a good sleeper?

8 M

b) Explain negative superelevation and grade compensation on curves.

8 M

4. a) What essential purposes are served by signaling? Mention the objectives of signaling. How are signals classified?

8 M

b) What are the components of a crossing? What are its requirements?

8 M

5. a) Explain the factors affecting selection of site for airport.

8 M

b) Write explanatory notes on surface and subsurface drainage to be carried out at an airport.

8 M

6. a) What are breakwaters, docks, wharves, quays and transit sheds? 8 M

b) Write the classification of harbours. What are the features of a harbour? While planning a harbour what are the important considerations? 8 M