

Code: CE6T5

III B.Tech - II Semester – Regular Examinations – May 2017

**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) Discuss in brief the modes of transportation.
- b) Discuss track specifications of Indian railways.
- c) Enumerates the forces acting on the track.
- d) Mention the requirements of ideal sleeper.
- e) Mention the classification of airport obstructions.
- f) Write about the gradient.
- g) Write down the disadvantages of crossing.
- h) Briefly explain about point and crossing.
- i) Write down the components of Aeroplane.
- j) Enumerate the features of harbor.
- k) List out types of water transportation.

PART – B

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

3 x 16 = 48 M

2. a) Draw a typical single line railway track in cutting and embankment showing full details. 8 M
- b) Enumerate the factors which affect the choice of the railway gauge. 8 M
3. a) Discuss the merits and demerits of the following types of sleepers. 8 M
- i. Steel sleepers
 - ii. Concrete sleepers
 - iii. Timber sleepers
 - iv. Cast iron sleepers
- b) Compare the suitability of different materials as ballast used on railway tracks. 8 M
4. a) Explain the following terms with neat sketches. 8 M
- i. Scissors cross over
 - ii. Diamond cross over
 - iii. Tandem or Double turn out
 - iv. Double junctions
- b) Explain the level crossing and types of crossings. 8 M

5. a) Explain the steps involved in runway orientation. 8 M
- b) What is the design factors affecting flexible pavements of airport? 8 M
6. a) What are the requirements of good port? 8 M
- b) Explain the process of dredging. 8 M