

00481

No. of Printed Pages : 2

BICE-019

B.Tech. CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

December, 2015

BICE-019 : TRANSPORTATION ENGINEERING – I

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions. All questions carry equal marks. Use of scientific calculator is permitted.

1. Define a permanent way and mention its components. 10
2. Explain the following terms : 2×5=10
 - (i) Creep of Rails
 - (ii) Wear of Rails
 - (iii) Cant Deficiency
 - (iv) Tractive Resistance
 - (v) Facing and Trailing Directions

3. What are the requirements of fish plates ? Discuss with suitable sketches, the different types of fish plates and their uses. 10
4. A B.G. track has a sleeper density of $(n + 5)$. Determine the number of sleepers required for constructing a railway track 704 metres long. 10
5. Write short notes on the following : $5 \times 2 = 10$
- (i) Types and layouts of stations and yards
 - (ii) Modern safety techniques in railways
6. Explain the different types of signals used in station-yards. 10
7. Explain the procedure adopted to plot a wind rose diagram. 10
8. Explain the various surveys to be conducted and the data to be collected for airport site selection. 10
9. What are docks ? Explain the different types of docks with the help of neat sketches. 10
10. Explain in detail about lightening and traffic control systems adopted in airports. 10
-