

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2024

B.Tech-VI Semester (Civil)

COURSE CODE (CREDITS): 18B1WCE634

MAX. MARKS: 15

COURSE NAME: Transportation Engineering

COURSE INSTRUCTORS: Dr. Amardeep

MAX. TIME: 1 Hours

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

- Q1. Discuss in details about the different types of sleepers and ballast along with their application? (3)
- Q2. Differentiate between different types of rails along with their merits and demerits. (3)
- Q3. Calculate the number of sleepers required in constructing a Broad Gauge railway track of length 650 m. (3)
- Q4. What is the importance of transition curve in railway system? Please discuss in detail. (2)
- Q5. Which of the following occurs when train travels at a speed greater than equilibrium speed on a curve and why? (1)
- a) Cant deficiency
 - b) Cant excess
 - c) Cant gradient
 - d) Rate gradient
- Q6. A curve of 600 m radius on a BG section has a limited transition of 40 m length. Calculate the maximum permissible speed and superelevation for the same. The maximum sectional speed (MSS) is 100 km/h. (4)