

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-~~VI~~^VS Semester (CE)

COURSE CODE (CREDITS): 18B1WCE634(3)

MAX. MARKS: 15

COURSE NAME: Transportation Engineering

COURSE INSTRUCTORS: Dr. Amardeep

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

| Q.No | Question | CO | Marks |
|------|--|-------|-------|
| Q1 | a) Define creep of rails. b) Explain the theories of creep. c) State any two effects and two preventive measures of creep. | CO -1 | 03 |
| Q2 | (a) Discuss the functions and requirements of rails in a railway track. (b) Compare wooden sleepers and prestressed concrete sleepers . (c) State the functions of ballast . | CO -1 | 05 |
| Q3. | 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. | CO -2 | 03 |
| Q4. | Calculate the number of sleepers required in constructing a Broad Gauge railway track of length 650 m. | CO -2 | 04 |