

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2023

B.Tech-VI Semester (Civil)

COURSE CODE (CREDITS): 18B1WCE634

MAX. MARKS: 15

COURSE NAME: Transportation Engineering

COURSE INSTRUCTORS: Dr. Amardeep

MAX. TIME: 1 Hours

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

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Q1. What do you mean by gauge? What are the different advantages of having uniformity in the gauges in a railway system? (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. Which of the following is also known as another name of inner rail? (1)

- a) Slope rail
- b) Fixed rail
- c) Gradient rail
- d) Cant rail

Q5. Which of the following occurs when train travels at a speed greater than equilibrium speed on a curve? (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)