

Roll No.



**PRESIDENCY
UNIVERSITY**
BENGALURU

Department of Research & Development
Mid - Term Examinations - SEPTEMBER 2024

Odd Semester: Ph.D. Course Work	Date: 27/09/2024
Course Code: CIV824	Time: 10:00am – 11:30am
Course Name: Railway Infrastructure Planning and Design (RIPD)	Max Marks: 50
Department: CIVIL Engineering	Weightage: 25%

Instructions:

- (i) Read all questions carefully and answer accordingly.
(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 5 marks.		4Qx5M=20M
1	Explain the significance of gauge uniformity in railway operations and discuss the challenges associated with maintaining it across regions.	5 Marks
2	What is meant by the coning of wheels, and why is it necessary?	5 Marks
3	How does the selection of a gauge affect railway operations?	5 Marks
4	What are the main elements of a railway track cross-section?	5 Marks

Part B

Answer ALL Questions. Each question carries 15 marks.		2QX15M=30M
5	Describe the components of the track structure on Indian Railways and their roles in maintaining track stability.	15 Marks
6	Analyze the importance of an ideal permanent way in ensuring safety, efficiency, and durability of railway operations.	15 Marks