



# GANDHI SCHOOL OF ENGINEERING

BHABANDHA, BERHAMPUR

BRANCH- CIVIL ENGINEERING

SEMESTER- 5TH

SUBJECT- Th3. RAILWAY & BRIDGE ENGINEERING

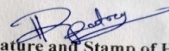
NAME OF THE FACULTY- ER.SRIDHRA SAHU & ER.ROJALIN MISHRA

		Topic to be taken				Actual topic taken		
Sl. No	Topic/ Module	No. of period	Details of the topics	Date	Topic No.	Topic Name	Date	Remarks
<b>Section – A: RAILWAYS</b>								
1	Introduction	2	1.1 Railway terminology 1.2 Advantages of railways 1.3 Classification of Indian Railways	01.08.2023- 04.08.2023	1.1 1.2 1.3	Railway terminology Advantages of railways Classification of Indian Railways	01.08.2023 04.08.2023	
2	Permanent way	5	2.1 Definition and components of a permanent way 2.2 Concept of gauge, different gauges prevalent in India, suitability of these gauges under different conditions	05.08.2023- 12.08.2023	2.1 2.2	Definition and components of a permanent way Concept of gauge, different gauges prevalent in India, suitability of these gauges under different conditions	05.08.2023 18.08.2023 19.08.2023 25.08.2023 26.08.2023	



5	Points and crossings	4	5.1 Definition, necessity of Points and crossings 5.2 Types of points & crossings with tie diagrams	25.09.2023- 30.09.2023	5.1 Definition, necessity of Points and crossings 5.2 Types of points & crossings with tie diagrams	17.11.2023 18.11.2023 24.11.2023 25.11.2023	
6	Laying & maintenance of track	4	6.1 Methods of Laying & maintenance of track 6.2 Duties of a permanent way inspector	<b>03.10.2023- 09.10.2023</b>	6.1 Methods of Laying & maintenance of track 6.2 Duties of a permanent way inspector	01.12.2023 02.12.2023 08.12.2023 09.12.2023	
<b>Section – B: BRIDGES</b>							
1	Introduction to bridges	2	1.1 Definitions 1.2 Components of a bridge 1.3 Classification of bridges 1.4 Requirements of an ideal bridge	<b>10.10.2023- 13.10.2023</b>	1.1 Definitions 1.2 Components of a bridge 1.3 Classification of bridges 1.4 Requirements of an ideal bridge	07.08.2023 08.08.2023	
2	Bridge site investigation, hydrology & planning	5	2.1 Selection of bridge site, Alignment, 2.2 Determination of Flood Discharge 2.3 Waterway & economic span 2.4 Afflux, clearance & free board	<b>16.10.2023- 04.11.2023</b>	2.1 Selection of bridge site, Alignment, 2.2 Determination of Flood Discharge 2.3 Waterway & economic span 2.4 Afflux, clearance & free board	14.08.2023 21.08.2023 22.08.2023 28.08.2023 29.08.2023	
3	Bridge foundation	8	3.1 Scour depth minimum depth of foundation 3.2 Types of bridge foundations – spread foundation, pile foundation- well foundation – sinking of wells, caisson foundation 3.3 Cofferdams	<b>06.11.2023- 21.11.2023</b>	3.1 Scour depth minimum depth of foundation 3.2 Types of bridge foundations – spread foundation, pile foundation- well foundation – sinking of wells, caisson foundation 3.3 Cofferdams	04.09.2023 11.09.2023 12.09.2023 25.09.2023 26.09.2023 03.10.2023 09.10.2023 10.10.2023	

4	Bridge substructure and approaches	5	4.1 Types of piers 4.2 Types of abutments 4.3 Types of wing walls 4.4 Approaches	<b>24.11.2023- 02.12.2023</b>	4.1 Types of piers 4.2 Types of abutments 4.3 Types of wing walls 4.4 Approaches	16.10.2023 17.10.2023 31.10.2023 06.11.2023 07.11.2023	
5	Culvert & Cause Ways	5	5.1 Types of culvers – brief description 5.2 Types of causeways – brief description	<b>04.12.2023- 12.12.2023</b>	5.1 Types of culvers – brief description 5.2 Types of causeways – brief description	20.11.2023 21.11.2023 28.11.2023 04.12.2023	

  
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