BALASORE SCHOOL OF ENGINEERING, BALASORE

LESSON PLAN/SEMESTER:- 5TH

SUBJECT:- RAILWAY & BRIDGE ENGG. (th-3) NAME OF THE FACULTY :- D. BARIK

Branch-civil engg section:-A & B

SL. No.	CH. NO.	Month	DATE	NAME OF THE CHAPTER/OBJECTIVES	NO. OF PERIOD AVAIL. AS PER SYLLABUS	NO. OF PERIODS AVAILABLE AS PER PLAN
1	CH-1	sep	15/09/22	**Introduction** 1.1 Railway terminology	02	02
2			16/09	1.2 Advantages of railways		
3			19/09	1.3 Classification of Indian Railways	05	07
4	CH-2		20/09	**Permanent way** 2.1 Definition and components of a permanent way		
5			21/09	2.2 Concept of gauge,		
6			22/09	CONT..		
7			23/09	different gauges prevalent in India,		
8			26/09	suitability of these gauges under different conditions		
9	CH-3		27/09	**Track materials** 3.1 Rails	10	14
10			28/09	3.1.1 Functions and requirement of rails		
11			29/09	3.1.2 Types of rail sections, length of rails		
12			30/09	3.1.3 Rail joints – types		
13		oct	10/10	requirement of an ideal joint		
14			11/10	3.1.4 Purpose of welding of rails & its advantages		
15			12/10	3.1.5 Creep- definition, cause & prevention		
16			13/10	3.2 Sleepers		
17			14/10	3.2.1 Definition, function & requirements of sleepers		
18			17/10	3.2.2 Classification of sleepers		
19			18/10	3.2.3 Advantages & disadvantages of different types of sleepers		
20			19/10	3.3 Ballast Functions & requirements of ballast		
21			20/10	3.3.2 Materials for ballast 3.4 Fixtures for Broad gauge		
22			21/10	3.4.1 Connection of rails to rail-fishplate,		

				fish bolts 4.4.2 Connection of rails to sleepers		
48			25/10	**Geometric for broad gauge** 4.1 Typical cross – sections of single &		
49			28/10	double broad gauge		
50			27/10	railway track in cutting and embankment		
51			28/10	4.2 Permanent & temporary land width		
52	CH-4		31/10	4.3 gradients for drainage		
53		dec	01/11	4.4 Super elevation – necessity	10	07
54			02/11	limiting valued		
55	CH-5		04/11	**POINTS AND CROSSING:5.1 Definition ,necessity of points and crossing**	04	03
56			04/11	5.2 Types of points		
57			07/11	Crossing with tie of diagrams		
58	CH-6		09/11	**LAYING AND MAINTEANCE OF TRACK:6.1 Methods of laying & maintenance of track**	04	02
59			10/11	6.2 Duties of a permanent way inspector		
60	CH-1		11/11	**BRIDGES Introduction to bridges 1.1 Definitions**	02	05
61			21/11	**1.2 Components of a bridge**		
62			22/11	**1.3 Classification of bridges**		
63			23/11	**1.4 Requirements of an ideal bridge**		
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65	CH-2		25/11	**Bridge site investigation, hydrology & planning** 2.1 Selection of bridge site,	05	05
66			28/11	Alignment		
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68			30/11	2.3 Waterway & economic span		
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70	CH-3	dec	02/12	**Bridge foundation** 3.1 Scour depth minimum depth of foundation	08	04
71			05/12	3.2 Types of bridge foundations – spread foundation,		
72			06/12	pile foundation- well foundation – sinking of wells, caission foundation		
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74	CH-4		08/12	**Bridge substructure and approaches** 4.1 Types of piers	05	04
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