

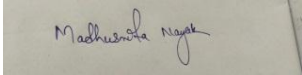
PNS SCHOOL OF ENGINEERING & TECHNOLOGY

LESSION PLAN

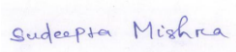
BRANCH-CIVIL	SEMESTER-5th	NAME OF THE FACULTY-ER. MADHUSMITA NAYAK
SUBJECT-RAILWAY & BRIDGE ENGINEERING	NO OF DAYS PER WEEK -6 CLASS ALLOTTED-60	SEMESTER FROM-01/08/2023 TO 30/11/2023
WEEK	CLASS DAY	THEORY TOPIC
AUGUST-1ST	2ND	Introduction , Railway
	3RD	Railway terminology
	4TH	Advantages of railways
	5TH	Classification of Indian Railways
2ND	1ST	Permanent way, Definition
	2ND	components of a permanent way
	3RD	Concept of gauge
	4TH	different gauges prevalent in India
	5TH	suitability of these gauges under different conditions
3RD	1ST	Track materials
	2ND	Rails Functions and requirement of rails
	3RD	Types of rail sections, length of rails Rail joints – types, requirement of an ideal joint
	4TH	Purpose of welding of rails & its advantages Creep- definition, cause & prevention
	5TH	
4TH	1ST	Sleepers 3.2.1 Definition, function & requirements of sleepers 3.2.2 Classification of sleepers
	2ND	Advantages & disadvantages of different types of sleepers
	3RD	Ballast
	4TH	Functions & requirements of ballast
	5TH	Materials for ballast, Fixtures for Broad gauge
SEPTEMBER-1ST	5TH	Connection of rails to rail-fishplate, fish bolts Connection of rails to sleepers
2ND	1ST	Geometric for broad gauge 4.1Typical cross – sections of single & double broad gauge railway track in cutting and embankment
	4TH	ITS CONITINING AND END
	5TH	Permanent & temporary land width
	6TH	Gradients for drainage Super elevation – necessity & limiting valued

3RD	1ST	Points and crossings
	2ND	Definition, necessity of Points and crossings
	3RD	Types of points & crossings with tie diagrams
	4TH	Laying & maintenance of track
	5TH	Methods of Laying & maintenance of track
4TH	1ST	Duties of a permanent way inspector
5TH		Section – B: BRIDGES 1 Introduction to bridges
	1ST	
	2ND	Definitions Components of a bridge
	3RD	Classification of bridges
	4TH	Requirements of an ideal bridge
OCTOBER-1ST	3RD	Bridge site investigation, hydrology & planning
	4TH	Selection of bridge site, Alignment
2ND	1ST	Determination of Flood Discharge
	2ND	Waterway & economic span Afflux, clearance & free board
	3RD	Bridge foundation Scour depth minimum depth of foundation
	4TH	Types of bridge foundations – spread foundation, pile foundation- well foundation – sinking of wells, caission foundation
	5TH	Coffer dams
3RD	1ST	Bridge substructure and approaches
	2ND	Types of piers
	3RD	Types of abutments
5TH	1ST	Types of wing walls
	2ND	TO CONTINUE
NOVEMBER-1ST	3RD	TO CONTINUE AND END
	4TH	Approaches
	5TH	Culvert & Cause ways
2ND	1ST	Types of culvers
	2ND	brief description
	3RD	Types of causeways –brief description
	4TH	ITS CONTINUING AND END
	5TH	IMPORTANT QUESTIONS AND ANSWER DISSCUSSION
3RD	2ND	IMPORTANT QUESTIONS AND ANSWER DISSCUSSION
	3RD	IMPORTANT QUESTIONS AND ANSWER DISSCUSSION
	4TH	IMPORTANT QUESTIONS AND ANSWER DISSCUSSION
	5TH	IMPORTANT QUESTIONS AND ANSWER DISSCUSSION
4TH	1ST	REVESION
	2ND	REVESION
	3RD	REVESION
	4TH	REVESION
	5TH	REVESION
	2ND	REVESION

5TH	3RD	REVISION
	4TH	REVISION



LECTURE SIGN



HODSIGN