

SESSIONAL DETAILS
RJEs BATCH - R 13 (AMRITSAR WORKSHOP)

Class Time Table

Class Teacher - Sri N.C. Jaiswal Ist Session - 23.09.2024 to 20.10.2024 IInd Session - 21.10.2024 to 17.11.2024							
Days/Period	I (09:40- 10:40)	II (10:40- 11:40)	III (11:55- 12:55)	12:55 to 01:45 LUNCH	IV (01:45- 02:45)	V (02:45- 03:45)	VI (04:00- 05:00)
Monday	NCJ	AdS	RCS		PR	DK	AY
Tuesday	AdS	RCS	PR		DK	AS	AKS
Wednesday	RCS	PR	AY		AS	AKS	PKS
Thursday	PR	DK	AS		AKS	PKS	NCJ
Friday	AY	AS	AKS		PKS	NCJ	AdS
Saturday	9:40- 10:35 NCJ	10:35- 11:30 AKS	11:40- 12:35 RCS	12:35- 01:30 AS			

AKS- Shri Avadhesh Kumar
PKS- Shri Prateek Kumar Srivastava
NCJ- Shri Naveen Chandra Jaiswal
ADS- Shri Adarsh Soni
RCS- Shri Ratnesh Chandra Srivastava
PR- Shri Pushpak Ranjan
DK- Shri Dipesh Kumar
AS- Shri Abhishek Shukla
AY- Shri Anuj Yadav

Sr. Lecturer

Encl: Module & Subject details.

ABSTRACT OF MODULES

SL. NO.	Name of Post	Stream	Module No.	Duration in Weeks
1	Sr. Section Engineer	C&W	MSE-C	52
2	Sr. Section Engineer	Diesel	MSE-D	52
3	Sr. Section Engineer	Workshop	MSE-W	52
4	Junior Engineer (RRB)	C&W	MJR-C	52
5	Junior Engineer (RRB)	Diesel	MJR-D	52
6	Junior Engineer (RRB)	Workshop	MJR-W	52
7	Junior Engineer	C&W	MJI-C	52
8	Junior Engineer	Diesel	MJI-D	52
9	Junior Engineer	Workshop	MJ1-W	52
10	Junior Engineer	C&W	MJP-C	13
11	Junior Engineer	Diesel	MJP-D	13
12	Junior Engineer	Workshop	MJP-W	13

Module Code

1. M Mechanical
2. SE Section Engineer
3. JR JE- RRB
4. JI JE- Intermediate
5. JP JE-Promotional
6. C C&W
7. D Diesel
8. W Workshop

Subject Code

1. M Module
2. R Railway
3. E Engineering
4. T Theory
5. C C&W
6. D Diesel
7. W Workshop

MODULE - MJP W

Name of the Post /Category	Junior Engineer
Stream	Workshop
Mode of Appointment	Promotion Through seniority
Min. Qualification	----
Total Duration of Training Period	13 weeks

Session	Type	Subject	Subject code	Duration in days	Activity Centre
I	THEO	Computer Awareness	MRT-14	06	STC
		Industrial Safety, First aid & Fire Fighting	MRT-16	03	
		Accident and Disaster Management	MRT-17	02	
		Supervisory Skills	MRT-18	03	
		Technical English	MRT-19	03	
		Manufacturing Processes (MP)	MET-12	04	
		Industrial Engineering	MET-13	01	
		Engineering Drawing (ED)	MET-14	02	
		Sub Total (Theory)		24	
II	THEO	Stream Specific Theory	MWT-05	24	STC
	PRACT	Diesel loco POH Work shop		06	Respective Places
		C&W POH Workshop/Production Unit		06	
		On Job training		12	
		Total		24	
III		Refreshing/Examination/Viva		06	
Grand total				78	

WORKSHOP			
Paper	Subjects	Marks*	Total
I	MRT-14	30	150
	MRT-16	30	
	MRT-17	30	
	MRT-18	30	
	MRT-19	30	
II	MET-12	75	150
	MET-13	25	
	MET-14	50	
TOTAL			300
I	MWT-05	100	100
II	Practical	50	50
III	Posting	50	50
TOTAL			200
GRAND TOTAL			500

Subject Faculty-Sri Prateek Srivastava

SUBJECT NAME	COMPUTER AWARENESS	
SUBJECT CODE	MRT-14	
MODULE	MJI, MJP	
SL NO.	TOPIC	TIME IN HRS
1	Introduction to Computers and Application of Computers/Windows, CMM, FMM	06
2	MS Word	09
3	MS Excel	09
4	MS Power Point	06
5	Internet usage	03
6	Review	03
	Total	36

Subject Faculty- Sri Annuj Yadav (S.No-1 to 6)
Sri Ratnesh Srivastava (S.No-7 to 15)

SUBJECT NAME	INDUSTRIAL SAFETY, FIRST AID & FIRE FIGHTING
SUBJECT CODE	MRT - 16
MODULE	MJP- C, D & W
DURATION	3 Days

SL NO.	TOPIC
1	Causes of fire; Identification of unsafe conditions and unsafe acts
2	Identifying and handling of various types of fire extinguishers
3	Precautions to be taken while extinguishing fire
4	Render first aid to the burn injuries; Render first aid to persons affected by suffocation; Communication
5	Scope and Rules of first Aid; Structure and function of body
6	General idea about circulation of blood; Wound & Hemorrhages; Dressing & Bandages
7	Shock & its management; Asphyxia & Artificial respiration
8	Injuries to bones & joints - fractures; Unconsciousness and General rules for the treatments of unconsciousness person
9	Practical demonstration of Transport of injured persons, stretcher exercises, preparing and blanketing stretcher
10	Principles of Accident, Causation & Its Prevention, Unsafe Acts & Unsafe Conditions
11	House Keeping & Material Handling, 5S
12	Safety on Small Tools and Electrical Appliances
13	Use of PPE
14	Role of Supervisors on Safety, Accident Reporting & Investigations
15	Review

Subject Faculty- Sri Abhishek Shukla (S.No-1 to 6)
Sri Dipesh Kumar (S.No-7 to 12)

SUBJECT NAME	ACCIDENT & DISASTER MANAGEMENT
SUBJECT CODE	MRT - 17
MODULE	MJP- C, D & W
DURATION	2 Days

SL NO.	TOPIC
1	Definition of Disaster, Types of Accidents, Accident Manual, Rail wheel interaction
2	Permanent way parameters, Readings in permanent way
3	Rolling stock parameters, Readings in rolling stock
4	Signal aspects to be recorded at the accident site
5	Recording of track, Rolling Stock
6	Role of supervisors at the accident site
7	Disaster Management Equipment in Railways, Composition and upkeep of ART/ARMV/SPART/ 140T, Hooter Codes
8	Civil Defense & First-Aid after an accident
9	Duties of Officials at Accident Site
10	Rescue Extrication Techniques & Fire Fighting
11	Rescue Techniques- Medical Relief, Golden Hour, CPR
12	Duties of on-board staff at accident site

Subject Faculty- Sri Avadesh Kumar

SUBJECT NAME	SUPERVISORY SKILLS
SUBJECT CODE	MRT - 18
MODULE	MJP- C, D & W
DURATION	3 Days

SL NO.	TOPIC
1	Leadership & Leadership styles
2	Motivation
3	Communication Skills
4	Time Management
5	Stress management
6	Interpersonal Skills
7	Ethics

Subject Faculty- Sri Pushpak Ranjan

SUBJECT NAME	TECHNICAL ENGLISH
SUBJECT CODE	MRT-19
MODULE	MJP- C, D & W
DURATION	3 Days

SL NO.	TOPIC
1	Communication Vocabulary
2	Grammar - Important terms
3	Common Errors
4	Official Correspondence
5	Business Correspondence
6	General Report Writing
7	Technical Report Writing

Subject Faculty- Sri N.C.Jaiswal

SUBJECT NAME	MANUFACTURING PROCESS
SUBJECT CODE	MET-12
MODULE	MJP- C, D & W
DURATION	04 Days

SL NO.	TOPIC
1	Production of metals
2	Hot and cold working
3	Smithy and forging
4	Foundry
5	Metal Joining
6	Metal Cutting Operations using different machines: Lathe, Drilling machine, Shaper and Planner, Grinding, Milling (CNC& non-CNC) etc.
7	Machining Operations in Wheel Shop
8	Basics of Metrology and Calibration
9	Physical Testing of materials (DT & NDT)
10	Un-conventional machines (Laser, Electron Beam etc.)
11	Review

Subject Faculty- Sri Ratnesh Srivastava

SUBJECT NAME	INDUSTRIAL ENGINEERING
SUBJECT CODE	MET-13
MODULE	MJP- C, D & W
DURATION	01 Days

SL NO.	TOPIC
1	Introduction
2	Method Study
3	Principle of Motion Economy
4	Plant Layout
5	Work Measurement
6	Incentive Schemes in Railway Workshops
7	Job Evaluation and Merit Rating

Subject Faculty- Sri Adarsh Soni

SUBJECT NAME	ENGINEERING DRAWING
SUBJECT CODE	MET-14
MODULE	MJP- C, D & W
DURATION	02 Days

SL NO.	TOPIC
1	Introduction about Engg. Drg.
2	Drawing Board, Instruments & its use
3	Lettering & Types of Lines
4	Dimensioning systems
5	Geometrical Constructions
6	Scales
7	Engineering curves
8	Principle of Projection - Projection of Points, Lines, Planes & Solids

Subject Faculty- MWT-05

Name	S.No.
Sri Avadesh Kumar	1,2,3 & 4
Sri Prateek Srivastava	6,7,8,30, 36 & 41
Sri N.C.Jaiswal	5,32,33,34,35,37 & 38
Sri Pushpak Ranjan	39,40,42, 44 & 45
Sri Anuj Yadav	22,23,24,25,26,28,29, 31 & 43
Sri Adarsh Soni	15,16,17,18,19,20 & 21
Sri Ratnesh Srivastava	9,10,11,12,13,14 & 27

SUBJECT NAME	WORKSHOP THEORY -05
SUBJECT CODE	MWT-05
MODULE	MJP-W
DURATION	24 Days

Sl. No	Topic	Duration in Hours
1	Organization setup of Railway from Board to workshop	02
2	Function of each department in short	02
3	Layout of workshop with important facilities for each shop functions	02
4	Role of workshop diff shops & its functions in brief	02
5	Reporting in Workshops- Targets, Planning, Statistics, Workshop Portal, 100 days failure statistics	02
6	Role of supervisors in workshop & their responsibilities	02
7	Material handling methods & Equipment	02
8	Jigs, Fixture & Gauges	02
9	Quality managements item (QMS) & TQM	03
10	ISO & EMS systems in workshop. Introduction to ISO 9001, ISO 14001 & ISO 50001, IMS 14001 & OHSAS 18001	06
11	Value Engineering types of needs and demands	03
12	Production planning and scheduling	06
13	Process inventory control	04
14	Industrial safety requirement & procedure	06
15	Drawings usage, preparation, Modification & its Record maintenance	03
16	Workshop Specific Labour laws, HOER, Workman Compensation Act	02
17	Pollution and its Control Measures in Workshops, Solid Waste Management, Effluent Treatment	03
18	Job costing	05
19	Standardization, Rationalization, Specification etc.	02
20	Inspection & Testing Procedure- DT & NDT Methods	02
21	CMT Lab functions	02
22	POH of different types of Wagons in Workshops. POH of Different types of Bogies of Wagons, Suspension System in wagon bogies, Spring failure: causes and remedies	02

Sl. No	Topic	Duration in Hours
23	POH of Stainless Wagons in Workshops, Rehabilitation and Conversion of Wagons	02
24	POH of ICF and LHB Coaches in Workshops	04
25	Details and Comparison of ICF and FIAT Bogies in Coaches, POH of Bogies and their components, Suspension system in coach bogies, Spring failure: causes and remedies	03
26	Coach Body Repair, Passenger Amenity Items. Bio Toilets & Bio-vacuum Toilet fitment during POH	04
27	POH of TL & AC system of Coaches (ICF & LHB)	04
28	Corrosion Repair Practice in Coaches & Wagons & Underframe	04
29	Air Brake System of Coaches & Wagons, Twin pipe brake system in wagons, Coupler: Balance draft Gears, POH Procedure & Testing methods	04
30	POH of different types of Locomotives in Workshops	02
31	Wheel Shop, Flow and Maintenance Wheels, POH Loco, Coaches and Wagon Bearings in Shops	06
32	NTXR Examination on Coaches & Wagons, NTXR reject able defects, Local Passing	03
33	Role of Stores Department in Workshops, Stock & Non-Stock Items. Stocking, EAC & AAC of Material	03
34	Stores drawl procedure	03
35	Stocking Application procedure for new stock items, Purchase Cycle	06
36	Procurement of Non-Stock Items; Indenting, Requisitions, Technical Suitability, Local Purchase, IREPS	02
37	Manufacture activities in Workshops	03
38	Workshop Manufacturing Suspense	02
39	Condemnation of Coaches, Wagons and Locomotives, Excluded Fittings	02
40	Condemnation of Ferrous & Non-Ferrous Scrap and its return to stores	02
41	Machinery, Plant & Equipment used in Workshops	03
42	Painting schedule and types of paints used in C&W, Powder Coating, Vinyl Wrapping, Grit Blasting	03
43	SPART/SPRMV & 140 T Crane maintenance practices	04
44	Industry 4.0, CNC machines	02
45	Workshop Visit	06
46	Revision	02
	Total	144