

SESSIONAL DETAILS
RJE BATCH - R 17 (Diesel Shed Ludhiana)

No. of Trainee - 01

Class Time Table

Ist Session		- 10.03.2025 to 06.04.2025					
IInd Session		- 07.04.2025 to 04.05.2025					
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		AnS	AS	AKS
Wednesday	RCS	PR	AY		ALS	AKS	MK
Thursday	PR	DK	AS		AKS	MK	NCJ
Friday	AY	ALS	AKS		MK	NCJ	AdS
Saturday	9:40- 10:35 ALS	10:35- 11:30 AKS	11:40- 12:35 RCS	12:35-01:30 AnS			

AKS - Shri Avadhesh Kumar
NCJ - Shri Naveen Chandra Jaiswal
PR - Shri Pushpak Ranjan
DK - Shri Dipesh Kumar
AS - Shri Abhishek Shukla
AdS - Shri Adarsh Soni
RCS - Shri Ratnesh Chandra Srivastava
MK - Shri Manish Kumar
AY - Shri Anuj Yadav
ALS - Shri Alok Srivastava
AnS - Shri Anurag Singh

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 D

Name of the Post /Category	Junior Engineer
Stream	Diesel
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	MDT-05 M/E	24	STC
	PRACT	Diesel Loco POH Workshop		06	Respective Places
		Practical training Diesel Shed		06	
		On Job training		12	
		Total		24	
III		Refreshing/Examination/Viva		06	
Grand total				78	

Marks*: Showing the approximate weightage of subject topic in the examination paper.

DIESEL			
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	MDT-05 M/E	100	100
II	PRACTICAL	50	50
III	DOCTING	50	50
TOTAL			200
GRAND TOTAL			500

Subject Faculty-Sri Anuj Yadav

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 Naveen Chandra Jaiswal (1 to 5)
Sri Anurag Singh (6-11)
Sri Abhishek Shukla (12-15)

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 Manish Kumar (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 Pushpak Ranjan

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 Naveen Chandra Jaiswal

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 Manish Kumar (1-5)
Sri Alok Srivastava (6-11)**

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- MDT-05 M/E

Name	S.No
Sri Anurag Singh	MDT-05 E 1,2,3,4 & 5
Sri Avadesh Kumar	MDT-05 M 1,2,3,4 & 5
Sri Adarsh Soni	MDT-05 M 6,7,8,9,10,11& 12
Sri Ratnesh Srivastava	MDT-05 E 6,7,8,9,10,11& 12

SUBJECT NAME	DIESEL LOCOMOTIVE THEORY(MECHANICAL)-5M
SUBJECT CODE	MDT-05 M
MODULE	MJR-D
DURATION	24 Days

Sl. No.	Topic	Duration in Hours
1	Power pack – Cylinder head, cylinder liner, connecting rod, cam shaft etc (Alco & HHP)	24
2	Supercharging principles, methods and various testing parameters, Air and Computer Control Brake	18
3	Air compressor, types, function and overhauling procedures; Air-Dryer	12
4	Fuel system – components, function, defects and remedy, Fuel injection system (Alco & HHP)	12
5	Lube oil system – components, function, defects and remedy (Alco & HHP)	12
6	Cooling water system – components, function, defects and remedy, Radiator fan – principle, operation and maintenance (Alco & HHP)	12
7	Layout of shop and shed, Schedule of maintenance (Alco & HHP), Shed management, Record keeping, Outages, Super checking	12
8	Loco maintenance procedure; Bogies- types, load transfer, transmission of TE, suspension system; Cattle guard, gear case, wheel profile, specification & defect, coupling, bearing fitment etc. (Alco & HHP)	12
9	GE loco- Mechanical System	08
10	DEMU-DPC Power pack and its mechanical system	12
11	Safety & Misc items- Cab equipment, Driver seat, Sanding equipment, Hand brake etc	04
12	Testing of Engines - Dry-run-Test, Blow-bye test, Random test, Load Box testing	06
	Total	144

SUBJECT NAME	DIESEL LOCOMOTIVE THEORY (ELECTRICAL)-5E
SUBJECT CODE	MDT-05 E
MODULE	MJR-D
DURATION	24 Days

Sl. No	Topic	Duration in Hours
1	Various types of Transmission, feature of an Ideal transmission in Diesel Loco, AC-DC, AC-AC transmission	06
2	Various rotating equipment such as TA, TM, EG, AG, DB Blower, CCEM, ECC, Fuel booster motor- Description/Overhauling/Repair/Testing, common problems & remedy for Alco loco	18
3	Excitation systems for Alco and HHP loco	12
4	Various rotating equipment such as TA, CA, AG, DB blower, starting motor, DB grid motor, Radiator fan motor, TCC Blower, FP motor etc for HHP loco	18
5	Dynamic brake system, Transition system - circuit analysis, defects and remedy for Alco	12
6	Microprocessor based controls, APU, REMMLOT, Distributed Power Control System (DPCS)	18
7	Types of governors, overhauling procedure, testing methods	08
8	Various safety devices, Horn, Head light, Wiper, Emergency switches and alarm fitted in Loco - working principles	08
9	Testing of Engines - Load Box testing, MU operation testing	12
10	Dynamic brake system, circuit analysis defect and remedy for HHP loco	12
11	GE Loco- electrical machines and control system	08
12	DEMU-DPC Electrical and control system, EP Brake, train lighting, SPART	12
	Total	144