

SESSIONAL DETAILS
RJE's BATCH - R 12 (UMB Div.)

No. of Trainees - 03

Class Time Table

I st Session – 20.08.2024 to 17.09.2024 II nd Session - 18.09.2024 to 16.10.2024							
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	AS
Tuesday	AdS	RCS	PR		DK	AS	AKS
Wednesday	RCS	PR	DK		AS	AKS	PKS
Thursday	PR	DK	AS		AKS	PKS	NCJ
Friday	DK	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

NAVEEN
CHANDRA
JAISWAL

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NAVEEN CHANDRA
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Date: 2024.08.20
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Sr. Lecturer

Encl: Module & Subject details.

MODULE - MJP C

Name of the Post /Category	Junior Engineer
Stream	C&W
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	MCT-03 MCT-04	24	STC
	PRACT	C&W POH Workshop/Production Unit		06	Respective Places
		Practical training C & W depot		06	
		On Job training		12	
		Total		24	
III		Refreshing/Examination/Viva		06	
Grand total				78	

EXAMINATION PATTERN

Session	Type	C&W			Total
		Paper	Subjects	Marks*	
I	THEO	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
II & III	THEO	I	MCT-03 & 04	100	100
	Pract	II		50	50
	Posting	III		50	50
	TOTAL				
GRAND TOTAL					500

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

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 Abhishek Shukla (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-MCT-03 & MCT-04

Name		Subject/S.No.	
NCJ	Shri Naveen Chandra Jaiswal	MCT-03 9,12	MCT-04 3,4,5,15,16,20
PR	Shri Pushpak Ranjan	MCT-03 1,2,3 &4	MCT-04 7,8,13,17,20,21
DK	Shri Dipesh Kumar	MCT-03 6,8	MCT-04 1,18
AS	Shri Abhishek Shukla	MCT-03 10,11	MCT-04 2,6,19
AdS	Shri Adarsh Soni	MCT-03 7	MCT-04 9,10,11
RCS	Shri Ratnesh Chandra Srivastava	MCT-03 5,12	MCT-04 12,14

SUBJECT NAME	C & W THEORY-03
SUBJECT CODE	MCT-03
MODULE	MJP-C

Sl. No.	Topic	Duration in Hours
1	Overview of C&W organization	03
2	Design, Repair & Maintenance of Shell: ICF, LHB, MEMU/EMU coaches and all variants like double decker, Tejas, Gatiman, Hamsafar, Dindayalu, Project Swarn & Project Utkrith, Train-Sets etc.	06
3	Air Brake System: Components, BMBC, EP brake, WSP, Pipe joints, Testing of coach brake, Loco capability test, continuity test	09
4	Twin pipe air brake system in wagon, BMBS in wagon, Brake Binding -Causes & remedies	03
5	Repair and maintenance of Passenger Amenities and Safety fittings	03
6	Bogie and Suspension system including Air Suspension: Repair and Maintenance, FIBA	08
7	Wheel & its defects, Wheel shelling in LHB coaches, Axles & bearings of all rolling stocks including MSU	06
8	Couplings & Buffers, IRS, CBC, Schaku, Dellnor, BDG: Design, repair and maintenance	06
9	Train Parting - Causes & remedies	03
10	Train Examination -Coaches: Maintenance schedules, Revised RPC-IV, Issue of BPC, CMM, En-route trouble shooting	03
11	IRCA Part IV, Modifications, TSOs, CAIs, Technical Pamphlets, Latest JPOs in Coaching Stock	03
12	Train lighting & Air-Conditioning: Maintenance of Battery and Battery box, RMPU, Lay-out of TL & AC equipment in Non-AC/AC and Power cars, Alternator, Invertor, RRU, IVC (inter vehicle couplers), SG, EOG, HOG	16
13	Toilet Systems: WRA and plumbing system, Bio-toilets & Bio-vacuum toilets	03
Total		72

SUBJECT NAME	C & W THEORY-04
SUBJECT CODE	MCT-04
MODULE	MJP-C

Sl. No.	Topic	Duration in Hours
1	Design features of various wagons including Stainless steel wagons, Aluminum wagons, Higher Axle load wagons, BOBRN Wagon including its door opening mechanism	06
2	New pattern of Train examination of goods stock- CC/Premium/End to End, long haul, heavy haul, Issue of BPC, e-BPC, FMM	03
3	Wagon manufacturing - use of huck bolts	03
4	ODC: classification, procedure for sanction, movement guidelines	03
5	Container wagons-BLC Train operation and maintenance practice	03
6	IRCA Part III	03
7	Repair & maintenance of goods stock-ROH	03
8	Tank Wagons - repairs & maintenance	03
9	Accident Relief Train	03
10	Derailment Mechanism	03
11	Accident Investigation, CRS Enquiry	03
12	Disaster Management - Role of Supervisors	03
13	Prevention of accident on C&W account	03
14	ART/MFD/SPART/140 T Crane Maintenance	03
15	WILD, Hot Box detector, Track side bogie monitoring system, Action to be taken on reporting	03
16	Depot stores management	03
17	Marshalling of trains	03
18	Role of Supervisors to minimize sick figures/coach detachment/ineffective %	03
19	Weigh bridge: AMC, Test special, Calibration, action to be taken in case of overloading	03
20	EnHM: MCC, OBHS, CTS, Pest control, Rodent control & Bed bugs control, Linen distribution, laundry: BOOT Laundry Equipment, disposal of solid waste, quick watering system, automatic coach washing plant, waste water recycling, Station cleaning, cleaning of IT device, electrical equipment	09
21	Layout of Coaching & goods stock yard and its infrastructural facilities	03
	Total	72