Class-Time Table

Session – AJE 3rd (20.10.2025 to 13.12.2025) **No of Trainees** - 18
Batch – AJE/25-26/01, AJE/25-26/02 & AJE/25-26/03
Course Coordinator – Shri Adnan Husain

Days/Period	I (09:40-10:40)	II (10:40-11:40)	Tea Break 11:40 to 11:55	III (11:55-12:45)	IV (12:45-13:30)	Lunch 13:30 to 14:30	V (14:30-15:45)	Tea Break 15:45 to 16:00	VI (16:00-17:00)
Monday	AH	ALS		AY	NCJ		ADS		ANS
Tuesday	RCS	AK		MK	AY		AH		Lab/Library
Wednesday	ADS	ANS		RCS	AK		MK		AM
Thursday	NCJ	AK		ALS	AY		ADS		ANS
Friday	AM	MK		ALS	NCJ		RCS		श्रमदान
Saturday	AY	AH		AK	AM				

NAVEEN CHANDRA JAISWAL
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Date: 2025.10.15 16:00:41 +05'30'

(N.C.Jaiswal)
Sr. Lecturer & Course Director/STC/CB

Faculty Name & Code

1. **NCJ** ------- Sri Naveen Chandra Jaiswal
2. **ADS** ------ Sri Adarsh Soni
3. **RCS** ------ Sri Ratnesh Srivastava
4. **MK** ------- Sri Manish Kumar
5. **AH** --------Sri Adnan Husain
6. **AY** --------Sri Anuj Yadav
7. **ALS** -------Sri Alok Kumar Srivastav
8. **ANS** --- ---Sri Anurag Singh
9. **AK** --------Sri Anurag Kushwaha
10. **AM** ------ Sri Arvind Maurya

MODULE & CODES

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

Subjects & Faculty

Shri Adarsh Soni (Ch-1,4,5,6,7,8,12) & Shri. Manish Kumar (Ch -2,3,8,9,10,11)

SUBJECT NAME	**DIESEL LOCOMOTIVE THEORY(MECHANICAL)-02 M**
SUBJECT CODE	**MDT-02 M**
MODULE	**MSE-D, MJR-D**

Sl. No.	Topic
1	Power pack – Cylinder head, cylinder liner, connecting rod, cam shaft etc (Alco & HHP)
2	Supercharging principles, methods and various testing parameters, Air and Computer Control Brake
3	Air compressor, types, function and overhauling procedures; Air-Dryer
4	Fuel system – components, function, defects and remedy, Fuel injection system (Alco & HHP)
5	Lube oil system – components, function, defects and remedy (Alco & HHP)
6	Cooling water system – components, function, defects and remedy, Radiator fan – principle, operation and maintenance (Alco & HHP)
7	Layout of shop and shed, Schedule of maintenance (Alco & HHP), Shed management, Record keeping, Outages, Super checking
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)
9	GE loco- Mechanical System
10	DEMU-DPC Power pack and its mechanical system
11	Safety & Misc items- Cab equipment, Driver seat, Sanding equipment, Hand brake etc
12	Testing of Engines - Dry-run-Test, Blow-bye test, Random test, Load Box testing
	Total

SUBJECT NAME	**DIESEL LOCOMOTIVE THEORY(ELECTRICAL)-02 E**
SUBJECT CODE	**MDT-02 E**
MODULE	**MSE-D, MJR-D**

Sl. No.	Topic
1	Various types of Transmission, feature of an Ideal transmission in Diesel Loco, AC-DC, AC-AC transmission
2	Various rotating equipment such as TA, TM, EG/CA, AG, DB Blower, Fuel booster pump motor - Description /Overhauling/Repair/Testing, common problems & remedy (Alco & HHP), ECC & CCEM in Alco
3	Excitation systems and Dynamic brake system, Transition system - circuit analysis, defects and remedy for Alco
4	Microprocessor based controls, APU, Distributed Power Control System, Safety devices Flasher light, horn, Wiper, head light, cab light etc.
5	Types of governors, overhauling procedure, testing methods
6	Emergency switches and alarm fitted in Loco - working principles
7	Testing of Engines - Load Box testing, MU operation testing
8	DEMU-DPC Electrical and control system, EP Brake, SPART
9	GE Loco- Electrical System
10	Excitation systems, Dynamic brake system, circuit analysis, defects and remedy for HHP loco
	Total

SUBJECT NAME	**WORKSHOP THEORY -02**
SUBJECT CODE	**MWT-02**
MODULE	**MSE-W, MJR-W**

Sl. No	Topic
1	Work Measurement Techniques, Procedures & Analytical Methods
2	Work Sampling Methods
3	Work Sampling Techniques & Probability Theory
4	Incentive Scheme, Rate Fixing, Normalizing & AT fixing, Work Order System & Procedure, Inspection Report sheets
5	Method Study Definition, Objectives & Procedures, On Cost booking & methods to reduce on cost
6	Job Evaluation & Merit Rating
7	Job Costing
8	Inspection & Testing Procedure- DT & NDT Methods
9	CMT Lab functions
10	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
11	POH of Stainless Wagons in Workshops, Rehabilitation and Conversion of Wagons
12	POH of ICF and LHB Coaches in Workshops
13	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
14	Coach Body Repair, Passenger Amenity Items, Bio Toilets & Bio-vacuum Toilet fitment during POH
15	POH of TL & AC system of Coaches (ICF & LHB)
16	Corrosion Repair Practice in Coaches & Wagons & Underframe
17	Air Brake System of Coaches & Wagons, Twin pipe brake system in wagons, Coupler: Balance draft Gears, POH Procedure & Testing methods
18	POH of different types of Locomotives in Workshops
19	Wheel Shop, Flow and Maintenance Wheels, POH of Loco, Coaches and Wagon Bearings in Shops.
20	NTXR Examination on Coaches & Wagons, NTXR reject able defects, Local Passing.
21	Role of Stores Department in Workshops, Stock & Non-Stock Items, Stocking, EAC & AAC of Material.
22	Stores drawl procedure

Sl. No	Topic
23	Stocking Application procedure for new stock items, Standardization, Rationalization, Specification, Purchase Cycle
24	Procurement of Non-Stock Items, Indenting, Requisitions, Technical Suitability, Local Purchase, IREPS, iMMIS, GeM, long term contracts
25	Manufacture activities in Workshops
26	Workshop Manufacturing Suspense
27	Condemnation of Coaches, Wagons and Locomotives, Excluded Fittings
28	Condemnation of Ferrous & Non-Ferrous Scrap and its return to stores
29	Machinery, Plant & Equipment used in Workshops
30	Painting schedule and types of paints used in C&W, Powder Coating, Vinyl Wrapping, Grit Blasting
31	Warranty claims of coaching and wagon items
32	SPART/SPRMV & 140 T Crane maintenance practices
32	Workshop Visit
33	Revision
	Total

Shri Anuj Yadav (Ch - 1 to 10), Shri. Naveen Jaiswal (Ch-11 to 17),

Shri Arvind Maurya (Ch -18 to 25)

Note- 1. The total teaching hours shall be divided equally between both trades.

2. The single question paper for MWT-04 will consist of questions from both trades, with equal weightage.

SUBJECT NAME	**WORKSHOP THEORY -04**
SUBJECT CODE	**MWT-04**
MODULE	**MJI-W**

Note: To be trained in any one of the following subjects depending on the trade

Carriage Shop

1	Layout, Organization structure, different sections of the shop
2	Salient features and constructional difference of coaches, repair practice at all stages of POH of different types of coaching stock. Modification to coaches for high speed running and precaution taken there to.
3	Lifting of coaches- dismantling of bogies, wheels etc
4	Repair, Overhaul & testing of bogies frame, bogie components
5	Repair, Overhaul & testing of springs, draft gear, buffing gear
6	Repair, Overhaul & testing of Air brake components
7	Repair, Overhaul & Inspection of Wheel & Roller Bearings
8	Repair, Overhaul & testing of water tank
9	Body repairs
10	Carpentry work.
11	Lowering and Levelling of coaches
12	Corrosion repairs
13	Modifications done on coaching stock
14	Provision of safety fittings, provision of amenity fittings.
15	Painting of Coaches
16	NTXR examination
17	Train lighting.
18	DEMU/EMU Coach POH Workshop
19	Repair and maintenance of Bio-Toilets, Bio-Vacuum toilets
20	Shop wise staff strength, material requirement, M&P, T&P and targets
21	Attention of accident involved coaches & conversion of coaches
22	POH practices of buffers and couplers
23	Air conditioning and Train lighting
24	RSP works and modifications
25	IMS cell, Drawing, Safety cell, Planning, Budget, PCO, Rate fixing, Progress, Inspection sections

Shri Anuj Yadav (Ch - 1 to 10), Shri. Naveen Jaiswal (Ch-11 to 15),

Shri Arvind Maurya (Ch -16 to 20),

Wagon Shop

1 Layout, Organization structure, Different sections of the shop
2 POH procedure for different types of wagons like BOXN, BOXC etc
3 POH procedure of tank wagons
4 POH procedure of Brake Van
5 POH of special wagons
6 Lifting & Lowering
7 Repair, Overhaul & testing of bogies frame, bogie components
8 Repair, Overhaul & testing of Air brake components
9 Repair, Overhaul & testing of springs, draft gear, buffing gear
10 Repair Overhaul & Inspection of Wheel & Roller Bearings
11 Body Repairs
12 Corrosion Repairs
13 Modifications done on goods stock
14 Painting of Wagons
15 NTXR Examination
16 Shop wise staff strength, material requirement, M&P, T&P and targets
17 Attention of accident involved wagons & conversion of wagons
18 POH practices of buffers and couplers
19 RSP works and modifications
20 IMS cell, Drawing, safety cell, Planning, Budget, Progress sections

Shri Adnan Husain (Ch-1 to 7), Shri. Alok Srivastava (Ch-8 to 15),

Shri Anurag Kushwaha (Ch – 16 to 26),

MCT 2/1- from S.No-1 to 12
MCT 2/2 Up to S.No- 13 to 26
(Visit & review to be divided In both the subjects)

SUBJECT NAME	**C & W THEORY-02**
SUBJECT CODE	**MCT-02**
MODULE	**MSE-C, MJR-C, MJI-C**

Sl. No.	Topic	Duration in Hours
1	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	24
2	Toilet Systems: WRA and plumbing system, Bio toilets & Bio-vacuum toilets	06
3	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	24
4	Design features of various wagons including Stainless steel wagons, Aluminum wagons, Higher Axle load wagons, BOBRN Wagon including its door opening mechanism	18
5	New pattern of Train examination of goods stock-CC/Premium/End to End, long haul, heavy haul, Issue of BPC, e-BPC, FMM	06
6	Wagon manufacturing - use of huck bolts	06
7	ODC: classification, procedure for sanction, movement guidelines	06
8	Container wagons-BLC Train operation and maintenance practice	06
9	IRCA Part III	12
10	Repair & maintenance of goods stock-ROH	12
11	Tank Wagons - repairs & maintenance	06
12	Twin pipe air brake system in wagon, BMBS in wagon, Brake Binding- Causes & remedies	12
13	Train Parting - Causes & remedies	12
14	Tippler operation, Silo loading; recovery of damages during loading unloading from private siding, warranty claims of wagon items	06
15	Accident Relief Train	06
16	Derailment Mechanism	06
17	Accident Investigation, CRS Inquiry	06
18	Disaster Management - Role of Supervisors	15
19	Prevention of accident on C&W account	12
20	ART/MFD/SPART/140T Crane Maintenance	09
21	Layout of Coaching & goods stock yard and its infrastructural facilities	12
22	Weigh bridge: AMC, test special, Calibration, action to be taken in case of overloading	06
23	WILD, Hot Box detector, Track side bogie monitoring system, Action to be taken on reporting	06

Sl. No.	Topic	Duration in Hours
24	Depot stores management	06
25	Marshaling of trains	06
26	Role of Supervisors to minimize sick figures/coach detachment/ineffective %	06
27	Visit to major coaching depot	06
28	Visit to major goods depot	18
29	Review	12
	Total	**288**