

## Class-Time Table

| <p style="text-align: center;"><b>Batch – AJE/26-27/02</b><br/> <b>Session – AJs' Ist Session (From 03.08.2026 to 26.09.26)</b><br/> <b>Date of Examinations*- 24.09.26 &amp; 25.09.26</b><br/> <b>No. of Trainees – 08 (T.No-1338 &amp; 1379 to 1385)</b>      <b>Course Coordinator – Sh. Anuj Yadav</b></p> |                    |                     |                      |                    |                     |                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|----------------------|--------------------|---------------------|-----------------------|
| Days/Period                                                                                                                                                                                                                                                                                                    | I<br>(09:40-10:40) | II<br>(10:40-11:40) | III<br>(12:00-13:00) | V<br>(14:00-15:00) | VI<br>(15:00-16:00) | VI #<br>(16:00-17:00) |
| Monday<br>14.09.26                                                                                                                                                                                                                                                                                             | AM                 | AH                  | AY                   | ALS                | ANS                 | Lab                   |
| Tuesday<br>15.09.26                                                                                                                                                                                                                                                                                            | AH                 | NCJ                 | AK                   | AY                 | AM                  | Library               |
| Wednesday<br>16.09.26                                                                                                                                                                                                                                                                                          | ANS                | AH                  | NCJ                  | AK                 | AY                  | श्रमदान               |
| Thursday<br>17.09.26                                                                                                                                                                                                                                                                                           | ALS                | ANS                 | NCJ                  | AM                 | AK                  | Technical Quiz        |
| Friday<br>18.09.26                                                                                                                                                                                                                                                                                             | AY                 | ALS                 | ANS                  | AM                 | AH                  | Presentation          |
| Saturday<br>19.09.26                                                                                                                                                                                                                                                                                           | AK                 | AY                  | 12:00-13:30<br>ALS   |                    |                     |                       |

**Tea Break** 11:40 – 12:00 hr.

**Lunch** 13:00-14:00 hr

\* Subject to Change    # To be monitored by Course Coordinator

(Naveen C. Jaiswal)

Sr. Lecturer & Course Director STC/CB/LKO

**नोट:** यदि किसी प्रशिक्षार्थी को किसी भी अध्याय/विषय को समझने में कोई कठिनाई हो, तो वह Course Director/Coordinator से संपर्क कर सकता है, ताकि अतिरिक्त कक्षाओं (Extra Classes) की व्यवस्था की जा सके।

**Note:** If any trainee has any difficulty in understanding any chapter/topic, they may contact the Course Director/Coordinator for arranging extra classes.

### **Abbreviations**

|                                           |                    |
|-------------------------------------------|--------------------|
| 1. NCJ ----- Sri Naveen Chandra Jaiswal 2 | MRT-01 Ch-17 to 37 |
| 2. AH -----Sri Adnan Husain               | MRT-01 Ch-01 to 16 |
| 3. ALS -----Sri Alok Kumar Srivastava     | MRT-02             |
| 4. AK -----Sri Anurag Kushwaha            | MRT-03             |
| 5. AM ----- Sri Arvind Maurya             | MRT-04             |
| 6. ANS --- ---Sri Anurag Singh            | MRT-05             |
| 7. AY -----Sri Anuj Yadav                 | MRT-06             |

### Module details

| 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 | MJI-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 details

|                     |                                              |
|---------------------|----------------------------------------------|
| <b>SUBJECT NAME</b> | <b>RAILWAY ORGANISATION &amp; MANAGEMENT</b> |
| <b>SUBJECT CODE</b> | <b>MRT - 01</b>                              |
| <b>MODULE</b>       | <b>MSE, MJR &amp; MJI</b>                    |

| <b>SL NO.</b> | <b>TOPIC</b>                                                         | <b>TIME IN HRS</b> |
|---------------|----------------------------------------------------------------------|--------------------|
| 1             | Organization of Indian Railways                                      | 03                 |
| 2             | Recruitment and training                                             | 03                 |
| 3             | General Conditions of service, APAR                                  | 03                 |
| 4             | Medical Attendance Rules                                             | 02                 |
| 5             | Leave Rules                                                          | 03                 |
| 6             | Pass Rules                                                           | 03                 |
| 7             | Conduct Rules                                                        | 02                 |
| 8             | DAR                                                                  | 06                 |
| 9             | Payment of Wages Act                                                 | 02                 |
| 10            | Minimum Wages Act                                                    | 01                 |
| 11            | Workmen's Compensation Act                                           | 02                 |
| 12            | Hours of Employment Regulations                                      | 03                 |
| 13            | Factories Act                                                        | 02                 |
| 14            | Industrial Disputes Act                                              | 03                 |
| 15            | NPS, RESS, PF, Pension & Other Retirement benefits                   | 04                 |
| 16            | Welfare Measures, Privilege for differently abled person             | 03                 |
| 17            | Organization and objectives of Stores branch                         | 02                 |
| 18            | Classification and Codification of Stores                            | 03                 |
| 19            | RTI, CPGRAMS                                                         | 03                 |
| 20            | Purchase Agencies: IREPS, Use of DSC, GeM,                           | 03                 |
| 21            | Procurement of stores - Non-Stock                                    | 04                 |
| 22            | Recoupment of stores - Stock item                                    | 04                 |
| 23            | Drawal of Stores                                                     | 03                 |
| 24            | Scrap disposal                                                       | 03                 |
| 25            | Disposal of surplus stores                                           | 01                 |
| 26            | Inventory Control, IMMIS                                             | 03                 |
| 27            | Organization and objectives of Accounts branch                       | 02                 |
| 28            | Budgeting                                                            | 03                 |
| 29            | Parliamentary control of Railways                                    | 02                 |
| 30            | Classification of Expenditure                                        | 03                 |
| 31            | Stock Verification                                                   | 02                 |
| 32            | Delegation of Powers, MSOP                                           | 01                 |
| 33            | M&P, Rolling stock and Works Programme: IRPSM, IRMNP and RSP portals | 06                 |
| 34            | Audit Paras                                                          | 03                 |
| 35            | Yoga & meditation                                                    | 06                 |
| 36            | Rajbhasha                                                            | 03                 |
| 37            | REVIEW                                                               | 03                 |
|               | <b>Total</b>                                                         | <b>108</b>         |

|                     |                                      |
|---------------------|--------------------------------------|
| <b>SUBJECT NAME</b> | <b>ROLE OF MECHANICAL DEPARTMENT</b> |
| <b>SUBJECT CODE</b> | <b>MRT-02</b>                        |
| <b>MODULE</b>       | <b>MSE, MJR &amp; MJJ</b>            |

| <b>SL NO.</b> | <b>TOPIC</b>                                                                                                              | <b>TIME IN HRS</b> |
|---------------|---------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1             | Organization and objectives of Mechanical Dept.                                                                           | 03                 |
| 2             | Types of Rolling stock-<br>Production/Repair/Maintenance practices of same                                                | 02                 |
| 3             | Production units:<br>Brief History, Activities                                                                            | 03                 |
| 4             | Workshops:<br>Role of C&W Workshop, Objectives, Organization, Layout, Activities of different shops                       | 06                 |
| 5             | Workshops:<br>Role of Diesel POH Workshop, Objectives, Organization, Layout, Activities of different shops                | 05                 |
| 6             | C&W Depot:<br>Role of C&W Depot, Objectives, Organization, Layout, Activities of different sections                       | 04                 |
| 7             | Diesel Sheds and EMU/MEMU/DEMU Shed:<br>Role of Sheds, Objectives, Organization, Layout, Activities of different sections | 06                 |
| 8             | Latest Development in Mechanical Dept. /Other Organizations-<br>RDSO, IRIMEE, RITES, CONCOR, CAMTECH                      | 02                 |
| 9             | EnHM: Role of EnHM, Organization, objectives, funds for EnHM works                                                        | 02                 |
| 10            | Review                                                                                                                    | 03                 |
|               | <b>Total</b>                                                                                                              | <b>36</b>          |

|                     |                             |
|---------------------|-----------------------------|
| <b>SUBJECT NAME</b> | <b>ROLLING STOCK THEORY</b> |
| <b>SUBJECT CODE</b> | <b>MRT-03, 04 &amp; 05</b>  |
| <b>MODULE</b>       | <b>MSE, MJR</b>             |

| <b>SL NO.</b> | <b>TOPIC</b>                                                                                                    | <b>TIME IN HRS</b> |
|---------------|-----------------------------------------------------------------------------------------------------------------|--------------------|
| <b>MRT-03</b> |                                                                                                                 |                    |
| 1             | Types of Coach and their nomenclature, Codal life, Transportation Codes, Coach numbering system                 | 03                 |
| 2             | Introduction of Coach Shell: ICF and LHB Coach                                                                  | 02                 |
| 3             | Wheel set- wheel, axle & bearings                                                                               | 04                 |
| 4             | Introduction of Different types of Bogie for Rolling Stock and Suspension system including Air Suspension       | 06                 |
| 5             | Types of Draw and Buffing Gears in Coaches and Wagons: An Introduction                                          | 06                 |
| 6             | Air & EP Brake system; Brake riggings                                                                           | 09                 |
| 7             | Furnishing items: ICF and LHB, EMU/MEMU coaches, Safety & amenity fittings                                      | 04                 |
| 8             | Maintenance practice in coaching stock                                                                          | 03                 |
| <b>MRT-04</b> |                                                                                                                 |                    |
| 9             | Types of wagon stock, their nomenclature, Codal life, Transportation Codes, Wagon Numbering System              | 03                 |
| 10            | Types of bogies in wagon stock                                                                                  | 03                 |
| 11            | Features of special wagons/latest wagons                                                                        | 03                 |
| 12            | Pattern of freight train examination                                                                            | 03                 |
| 13            | Weighbridge, WILD and other way side monitoring systems: Overview                                               | 03                 |
| <b>MRT-05</b> |                                                                                                                 |                    |
| 14            | Diesel locomotives - types, Introduction of Electric Loco, EMU/MEMU & Train-Sets                                | 03                 |
| 15            | Important systems in a diesel locomotive: Fuel oil, lube oil, cooling water, turbo supercharging & brake system | 15                 |
| 16            | Electrical control system in Locomotives and Train-Sets/EMU/MEMU                                                | 06                 |
| 17            | Latest development in Rolling Stock including Locomotives & Train-Sets                                          | 06                 |
| 18            | DEMU: Power and Trailing cars, important features and systems                                                   | 05                 |
| 19            | SPART- Introduction, Basic arrangements, importance.                                                            | 01                 |
| 20            | Visit to model room/coaching/wagon depot/workshop & loco shed                                                   | 14                 |
| 21            | Review                                                                                                          | 06                 |
| <b>Total</b>  |                                                                                                                 | <b>108</b>         |

|                     |                                                         |
|---------------------|---------------------------------------------------------|
| <b>SUBJECT NAME</b> | <b>INDUSTRIAL SAFETY, FIRST AID &amp; FIRE FIGHTING</b> |
| <b>SUBJECT CODE</b> | <b>MRT-06</b>                                           |
| <b>MODULE</b>       | <b>MSE, MJR &amp; MJI</b>                               |

| <b>SL NO.</b> | <b>TOPIC</b>                                                                                                                                        | <b>TIME IN HRS</b> |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1             | Causes of fire;<br>Identification of unsafe conditions and unsafe acts                                                                              | 02                 |
| 2             | Identifying and handling of various types of fire extinguishers                                                                                     | 04                 |
| 3             | Precautions to be taken while extinguishing fire                                                                                                    | 02                 |
| 4             | Render first aid to the burn injuries<br>Render first aid to persons affected by suffocation;<br>Communication                                      | 02                 |
| 5             | Scope and Rules of first Aid; Structure and function of body                                                                                        | 02                 |
| 6             | General idea about circulation of blood; Wound & Hemorrhages;<br>Dressing & Bandages                                                                | 02                 |
| 7             | Shock & its management; Asphyxia & Artificial respiration                                                                                           | 02                 |
| 8             | Injuries to bones & joints - fractures; Unconsciousness and<br>General rules for the treatments of unconsciousness person                           | 02                 |
| 9             | Practical demonstration of Transport of injured persons, stretcher<br>exercises, preparing and blanketing stretcher, Basic Life Support<br>Training | 03                 |
| 10            | Principles of Accident, Causation & its Prevention, Unsafe Acts &<br>Unsafe Conditions                                                              | 03                 |
| 11            | House Keeping, EOT Crane Operation & Material Handling, 5S                                                                                          | 02                 |
| 12            | Safety on Small Tools, Electrical Appliances, Welding & cutting<br>gases, Working on heights                                                        | 02                 |
| 13            | Use of PPE, Mock Drills                                                                                                                             | 03                 |
| 14            | Role of Supervisors on Safety, Accident Reporting &<br>Investigations                                                                               | 02                 |
| 15            | Review                                                                                                                                              | 03                 |
|               | <b>Total</b>                                                                                                                                        | <b>36</b>          |

## Examination Pattern

### JUNIOR ENGINEER (RRB) (MJR-C, MJR-D, MJR-W)

|         |        | C&W   |          |         |       | DIESEL |          |         |       | WORKSHOP |          |         |       |
|---------|--------|-------|----------|---------|-------|--------|----------|---------|-------|----------|----------|---------|-------|
| Session | Type   | Paper | Subjects | Marks * | Total | Paper  | Subjects | Marks * | Total | Paper    | Subjects | Marks * | Total |
| I       | Theory | I     | MRT-01   | 75      | 100   | I      | MRT-01   | 75      | 100   | I        | MRT-01   | 75      | 100   |
|         |        |       | MRT-06   | 25      |       |        | MRT-06   | 25      |       |          | MRT-06   | 25      |       |
|         |        | II    | MRT-02   | 25      | 100   | II     | MRT-02   | 25      | 100   | II       | MRT-02   | 25      | 100   |
|         |        |       | MRT-03   | 25      |       |        | MRT-03   | 25      |       |          | MRT-03   | 25      |       |
|         |        |       | MRT-04   | 25      |       |        | MRT-04   | 25      |       |          | MRT-04   | 25      |       |
|         |        |       | MRT-05   | 25      |       |        | MRT-05   | 25      |       |          | MRT-05   | 25      |       |