

# Modern Coach Factory, Rae Bareli

Office of the  
General Manager (P)

Dated 28.11.2022

No. MCF/RBL/Estt/Selection/Gr. 'B'/Mech.

## NOTIFICATION

**Sub : Formation of panel for promotion to Group 'B' post of Assistant Workshop Manager (AWM) in Mechanical Engineering Department against 70 % Selection quota & 30% Limited Departmental Competitive Examination (LDCE) quota.**

Railway Board has decided to hold Centralised Computer Based Objective Type Test (CBT) to form a panel for promotion to Group 'B' posts of Assistant Workshop Manager (AWM) in Mechanical Engineering Department through (70% Selection quota) & (30% LDCE Quota) by calling volunteers from amongst those fulfilling the eligibility conditions. The details are as under: -

### **(A) For 70% quota through Selection**

1. **Assessment Period** -- 01.01.2023 to 31.12.2024 (Upto 30.06.2025)
2. **No. of Vacancies** -- **06 (05 UR, 01 SC, 00 ST)**
3. **Acknowledgment & Willingness of Eligible Candidates:**

3.1 The controlling officer should ensure that copy of this Notification is delivered to each of the candidates listed in the enclosed Annexure 'A' and Annexure 'B' which should be sent to SPO/Gaz. within 15 days time i.e. upto **13.12.2022**.

3.2 All the candidates listed in Annexure- 'A' are required to indicate/submit their willingness or unwillingness to appear in the selection within 15 days i.e. upto **13.12.2022** in the Proforma given in Annexure 'C' to their concerned officers, who in turn will forward the same to SPO/Gaz. It is the candidate's responsibility to advise the willingness to appear in the selection within the prescribed period and failure to respond or provide intimation will be treated as unwillingness on his part to appear in the selection and in their place, the candidates from the reserve list will be invited to appear in the said selection.

The candidates listed in the reserve list given at Annexure-B, are requested to submit their willingness in the prescribed format (Annexure- 'C') and keep themselves ready to appear in the selection test, if asked.

3.3 In case any of the eligible candidates has been transferred to any other organization or proceeded on leave or on deputation and on transferred retaining their lien, a copy of this Notification must be delivered to him immediately and acknowledgment may be obtained and send to this office.

### **4. Condition of Eligibility**

Gr. 'C' categories of employee listed below working in Pay Band-2 (Rs.9300-34800) with Grade Pay of Rs.4200 and above with three years of non-fortuitous service in the grade as on 01.01.2023 (including non-fortuitous service rendered in the corresponding pre-revised grades) are eligible to volunteer for the selection.

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28/11/22





The employees who fulfil the following eligibility criteria can apply for the selection. The eligibility conditions should have been fulfilled as on 01.01.2023.

- 4.2 All supervisory staffs in Gr. 'C' of Mechanical Department (Workshop and D&D Staff) are eligible as per integrated seniority.
- 4.3 The selection has been initiated for 06 vacancies, as per the existing rules. List of eligible Candidates for 70 % Quota along with reserve list are enclosed herewith as annexure- 'A' & 'B' respectively.

**5. Scheme of the Examination and Qualifying Marks: -**  
**{Authority No. E(GP)2018/2/31 dated 19.03.2019 & E(GP)2022/2/4 dated 07.10.2022}**

- 5.1 The written examination will comprise of One Paper which will have 100% Objective type Multiple Choice Questions only.
- 5.2 The duration of the examination will be 02 (Two) hours or as notified by the NAIR, the nodal agency to conduct the CBT.
- 5.3 All Objective type Multiple Choice Question will carry equal marks.
- 5.4 **There shall be negative marking for incorrect answers. One-third of the marks allotted for each question will be deducted for every wrong answer.**

Paper	Maximum Marks	Qualifying Marks
Professional Subject including optional question of 10 marks on Official Language Policy & Rules	70 Marks	60 Marks with relaxation as per extant rules
Establishment & Financial Rules	30 Marks	

Note: The employees securing qualifying marks in the written examination will be eligible to be sent for medical examination. Only those employees who are certified fit for the prescribed medical examination will be allowed to appear for Viva-Voce.

**Records of Service and Viva-Voce: -**  
**{Authority No. Para 10.2 (B) of Master Circular 68}**

Detail of Exam	Maximum Marks	Qualifying Marks
Viva-Voce	25	30 including at least 15 marks in the record of service.
Record of Service	25	

**6. Syllabus: -**  
**{Authority No. E(GP)2022/2/4 dated 07.11.2022}**

The syllabus for the written examination is enclosed as 'Annexure-E'.

**(B) For 30% quota (LDCE)**

- 7. **Assessment Period** -- 01.01.2023 to 31.12.2024 (Upto 30.06.2025)
- 8. **No. of Vacancies** -- **03 (02 UR, 01 SC, 00 ST)**

Contd.....

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## 9. Condition of Eligibility

Gr. 'C' categories of employee working in Pay Band-2 (Rs.9300-34800) with Grade Pay of Rs.4200 (Level -6 in 7<sup>th</sup> CPC) and above as on 01/01/2023 **with 5 years** of non-fortuitous service in the Grade (including non-fortuitous service rendered in the corresponding pre-revised grades) are eligible to volunteer for the selection.

## 10. Scheme of the Examination and Qualifying Marks: -

{Authority No. E(GP)2018/2/31 dated 19.03.2019, E(GP)2022/2/4 dated 28.06.2022 & E(GP)2022/2/4 dated 06.09.2022}

- 10.1 The written examination will comprise of One Paper which will have 100% Objective type Multiple Choice Questions only.
- 10.2 The duration of the examination will be 03 (Three) hours.
- 10.3 All Objective type Multiple Choice Question will carry equal marks.
- 10.4 **There shall be negative marking for incorrect answers. One-third of the marks allotted for each question will be deducted for every wrong answer.**

Paper	No. of Questions	Maximum Marks	Qualifying Marks	Duration of Examination
Technical (Professional) Subject	85 (Includes 5 Optional questions)	80	90	03 hours
General Knowledge & Official Language & Rules	55 (Includes 15 Optional questions)	40		
Establishment & Financial Rules	35 (Includes 5 Optional questions)	30		

Note: The employees securing qualifying marks in the written examination will be eligible to be eligible to be sent for medical examination. Only those employees who are certified fit for the prescribed medical examination will be allowed to appear in the Viva-voce.

## Records of Service and Viva-voce-

{Authority No. Para 10.2 (B) of Master Circular 68}

Detail of Exam	Maximum Marks	Qualifying Marks
Viva-voce	25	30 including at least 15 marks in the record of service
Record of Service	25	

## 11. Syllabus

{Authority No. E(GP)2022/2/4 dated 07.11.2022}

The syllabus for the written examination is enclosed as Annexure 'F'.

## 12. SUBMISSION OF APPLICATION:

- a. It should be ensured that wide publicity is given to this notification amongst all the staff concerned. It is the personal responsibility of Controlling Officers of the units to ensure that the notification reaches to all the eligible employees in time.

Contd....




- b. Applications in the prescribed Performa (Annexure – 'C' & 'D') for 70% Selection quota and 30% LDCE Quota respectively are invited from the volunteers who fulfil the eligibility conditions as on 01.01.2023 as detailed above.
- c. Applicants should fill all the columns in the application form.
- d. The applicants should put their signature with date on the application form.  
**(Repeat signature and date both are compulsory otherwise applications are liable to be rejected).**
- e. The filled in applications duly forwarded by their controlling officer should be submitted to Personnel Department latest by **13.12.2022**.
- f. Applications of those candidates who fulfil the eligibility conditions should only be forwarded.
- g. If any employee is holding an ex-cadre post, details of his post in regular cadre with grade and date of entry on regular measure should be furnished.

- NB : - (i) 15-20 working days of pre-selection coaching will be provided to the eligible employees of SC category only before the selection. Schedule of Pre-Selection Coaching will be published later. {Authority No. E(GP) 2010/2/39 dated 28.08.2019}**
- (ii) Tentative date of written examination for 70% Selection Quota is 22.01.2023 and 29.01.2023 (Supplementary).**

Please acknowledge the receipt of this notification.

Encl: As above.

No.MCF/RBL/Estt./Selection/Gr.B/Mech.  
Dated 28.11.2022

  
(Dr. A. K. Yadav)  
Sr. Personnel Officer/Gaz.  
For General Manager (P)

Copy to : for kind information and necessary action please.

1. Secy to GM/MCF/RBL | For kind information to GM.
2. PCME & All HODs, Mechanical Department, MCF/RBL | For kind information.
3. All staff concerned |
4. Steno-I to PCPO: For uploading on the website of MCF/RBL.
5. Ch. OS/NG-II: For information of those candidates who are on deputation.
6. All Notice Boards.

## MAIN LIST

Probable Main List of Candidates under zone of consideration for selection to the post of AWM/Mech, in Pay Matrix, Level-8 (GP 4800/-) against 70% Promotion Quota.

Ref : Notification No. MCF/RBL/Estt/Selection/Gr 'B'/Mech Dated : 28.11.2022

SN	EMP NO	NAME OF EMP (S/SHRI)	FATHER'S NAME (S/SHRI)	DESIG.	CAT.	DOB	DOA/DOP IN PRESENT GRADE (SSE/LEVEL-7)	Remarks
1	52000451059	ANOOP KUMAR JAUHARI	SURESH CHANDRA JAUHARI	SSE/WS	UR	30.06.1966	09-11-1995	
2	52000452051	MAHENDRA KUMAR SINGH	PARSHU RAM SINGH	SSE/ D&D	SC	02-11-1972	15-10-1998	
3	52000451576	TRILOKI NATH	PANCHAM	SSE/WS	UR	12.07.1964	05-10-2002	
4	52000450130	LAL CHAND RAM	RAM LAKHAN RAM	SSE/WS	SC	01.06.1964	03-04-2003	
5	52000458575	VENAY KUMAR SAINY	SHYAM LAL PUSH PAD	SSE/WS	OBC	01.07.1965	01-11-2003	
6	52000460556	RABINDRA PANDEY	RAGHUNATH PANDEY	SSE/WS	UR	02.01.1964	01-11-2003	
7	52000452761	VED PRAKASH SHARMA	KRISHNA DUTT SHARMA	SSE/WS	UR	07.06.1964	28-02-2005	
8	52000451928	VISHNU P SRIVASTAVA	JADUNANDAN PD SRIVASTAVA	SSE/WS	UR	01.01.1971	16-03-2005	
9	27510288314	CHANDRA BHUSHAN SRIVASTAVA	D. S. LAL SRIVASTAVA	SSE/WS	UR	20.07.1963	22.06.2005	
10	52000452511	RAJESH KUMAR GUPTA	LT RAM PAL GUPTA	SSE/WS	UR	12.03.1969	19-07-2005	
11	52000451932	SHARDA J YADAV	JANARDAN YADAV	SSE/WS	OBC	01.01.1968	23-07-2005	
12	52000453406	SHAMIM HUSSAIN	SAJJAD HUSSAIN	SSE/WS	UR	01.07.1966	28-09-2005	
13	52000459879	M NAIYER KALAM	ABUL KALAM	SSE/WS	UR	01.04.1967	21-03-2006	
14	52000459262	NAROTTAM VISHWAKARMA	JHALKAN PD VISHWAKARMA	SSE/WS	OBC	19.12.1977	09-04-2006	
15	52000460024	MOHAN LAL MEENA	PAIMA LAL MEENA	SSE/WS	ST	07.07.1978	26-04-2006	
16	52000452564	SHYAM SUNDAR	RAM LAKHAN	SSE/WS	SC	15.07.1977	24-11-2006	
17	52000452009	JARRAR ALI	IQBAL AHMAD	SSE/WS	UR	14.07.1972	06-12-2006	
18	52000450183	AMIT SINGH	H N SINGH	SSE/WS	UR	01.04.1977	22-12-2006	

*Madao*  
28/11/22



## RESERVED LIST

Probable Reserved List of Candidates for selection to the post of AWM/Mech, in Pay Matrix, Level-8  
(GP 4800/-) against 70% Promotion Quota.

Ref : Notification No. MCF/RBL/Estt/Selection/Gr 'B'/Mech Dated : 28.11.2022

SN	EMP NO	NAME OF EMP (S/SHRI)	FATHER'S NAME (S/SHRI)	DESIG.	CAT.	DOB	DOA/DOP IN PRESENT GRADE (SSE/LEVEL-7)	Remarks
1	52000452047	ALOK SANDIP	MUSAHEB SAHU	SSE/ D&D	OBC	08-03-1976	06-03-2007	
2	52000450198	CHANDRA BHUSAN	BHAWANI PRASAD	SSE/WS	OBC	02.01.1974	14-03-2007	
3	52000451839	RAVI PRAKASH	C.R. ARYA	SSE/WS	SC	05.12.1978	14-03-2007	
4	52000453444	RAJAN GUPTA	P S GUPTA	SSE/WS	UR	25.11.1971	26-07-2007	
5	52000459987	SAYED ASGHAR MEHDI ZAIDI	SYED ISHTIAQ HUSAIN ZAIDI	SSE/WS	UR	15.07.1972	22-09-2007	
6	52000459898	TARUN KUMAR	ABHAY RAJ YADAV	SSE/WS	OBC	02.07.1980	15-12-2007	
7	52000460626	SATYA PRAKASH	MERHU LAL	SSE/WS	SC	05.06.1977	08-03-2008	
8	52000458734	HARIHAR RAM	LT. SURAT RAM	SSE/WS	SC	03.02.1973	19-10-2008	
9	52000451260	DEV PATHAK	RAJENDRA KUMAR PATHAK	SSE/WS	UR	05.07.1981	25-11-2008	
10	52000452475	SHAMBHU KUMAR	LT KALLU RAM	SSE/WS	SC	05.03.1983	20-01-2009	
11	52000450179	SAROJ KUMAR SUMAN	CHANDRA BALI	SSE/ D&D	SC	15-06-1976	15-12-2009	
12	52000459915	PANKAJ KR. BHARDWAJ	DHANIRAM BHARDWAJ	SSE/WS	UR	16.05.1976	19-01-2010	
13	52416000504	MAHESH PRASAD SHARMA	RAMA SHANKER SHARMA	SSE/WS	OBC	02.03.1983	04-05-2010	
14	52000460113	VIVEK KUMAR YADAV	BIHARI RAM YADAV	SSE/WS	OBC	08.07.1978	16-06-2010	
15	52000453355	KAUSHAL K SRIVASTAVA	KULBHUSHAN SRIVASTAVA	SSE/ D&D	UR	10-12-1978	16-09-2010	

*Madan*  
28/11/22



PROFORMA

To,

SPO/Gaz.,  
MCF/RBL.

Sub: Application for appearing in the written examination for selection to the post of AWM, in Pay Matrix Leve-8 (G.P.-4800/-) against 70% Selection Quota

Ref :- Notification No. MCF/RBL/Estt/Selection/Gr. 'B'/Mech. dated 25.11.2022

I am in receipt of notification No. MCF/RBL/Estt/Selection/Gr. 'B'/Mech. dated 25.11.2022 alerting me for selection to the post of AWM in Level-8 {PB Rs.9300-34800+GP 4800/-}.

I declare that I am fulfilling all the eligibility conditions and I shall abide by all the terms and conditions attached to the selection.

I am **WILLING/ UNWILLING** to appear for the selection.

I am also aware that if I fail to give this declaration, it will be deemed that I am not willing to appear for the selection.

My Details are given below:-

1. Railway/PU :
2. Name of Post applying for :
3. Name Of applicant :
4. Emp. No./I-Pass Number :
5. HRMS ID :
6. Designation :
7. Mobile No. :
8. Email ID :
9. Place of Posting :
10. Division/Workshop/Unit :
11. Controlling Officer :
12. Date of Birth :
13. Whether the employee belongs (UR/OBC/SC/ST) :
14. Whether a PwBD requiring scribe :
15. Willing/Unwilling :

Date:

Place:

SIGNATURE OF THE EMPLOYEE .

**FORWARDED BY THE CONTROLLING OFFICER**

Date:

Place:

**Signature of the forwarding officer  
with designation and date**

*Handwritten signature and date: 28/11/22*



PROFORMA

To,

SPO/Gaz.,  
MCF/RBL.

Sub: Application for appearing in the written examination for selection to the post of AWM, in Pay Matrix Leve-8 (G.P.-4800/-) against 30% LDCE Quota.

Ref :- Notification No. MCF/RBL/Estt/Selection/Gr. 'B'/Mech. dated 25.11.2022

I am in receipt of notification No. MCF/RBL/Estt/Selection/Gr. 'B'/Mech. dated 25.11.2022 alerting me for selection to the post of AWM in Level-8 {PB Rs.9300-34800+GP 4800/-}.

I declare that I am fulfilling all the eligibility conditions and I shall abide by all the terms and conditions attached to the selection.

I am **WILLING/ UNWILLING** to appear for the selection.

I am also aware that if I fail to give this declaration, it will be deemed that I am not willing to appear for the selection.

My Details are given below:-

1. Railway/PU :
2. Name of Post applying for :
3. Name Of applicant :
4. Emp. No./I-Pass Number :
5. HRMS ID :
6. Present Designation with GP/Level :
7. DOA in Present Post (GP/Level) :  
(i) DOA in Zonal Railway :  
(ii) DOA in MCF/RBL :
8. DOA in GP 4200/Level-6 :
9. Mode of Joining MCF (DR/IRMT/Own Request/Option/Other) :
10. Mobile No. :
11. Email ID :
12. Place of Posting :
13. Division/Workshop/Unit :
14. Controlling Officer :
15. Date of Birth :
16. Whether the employee belongs (UR/OBC/SC/ST) :
17. Whether a PwBD requiring scribe :
18. Educational/Technical Qualification :

Date:

Place:

SIGNATURE OF THE EMPLOYEE

FORWARDED BY THE CONTROLLING OFFICER

Date:

Place:

Signature of the forwarding officer  
with designation and date

*Madan*  
28/11/22



**SYLLABUS FOR PROMOTION TO GROUP 'B' POST OF ADME/AWM THROUGH  
70 % SELECTION IN MECHANICAL DEPARTMENT**

Paper will be of two parts one part comprising of questions from establishment, Financial Rules and Stores which will be mandatory for all. Other part will be of Technical questions from four streams of Mechanical Department. Questions on PU are included in workshop segment. Question on Rajbhasha will be of optional nature of fifteen marks

Part-A consists of questions from Establishment, Financial rules & Stores.

Part-B Contains Professional portion in Four sections representing various streams of Mechanical Branch – Divisional working and Disaster management, Diesel Locomotives, Carriage & Wagon, Workshops and PU,

**PART-A (Stores Rules)**

**STORES**

- Classification of Stores
- Procedure of drawal of Stores
- Indenting Procedures
- Procurement methods-Local purchase, Spot purchase, Bulletin tender, Advertised tender, Limited tender, Tender Committee, Direct Purchasing
- Schedule of Powers
- Incoming inspection requirements  
Scrap disposal

**PART-B-Professional Portion**

**DIVISIONAL WORKING & OPERATIONS MANAGEMENT**

**Working Time Table**

- Working in Control Office including Passanger grievance redressal portals e.g. Rail Madad
- Accident Classification, definitions, ART Ordering, Role of Supervisors & officers at accident site Management. ,Accident investigation including proforma for measurement
- 140 ton Crane Construction & safety in operations

**DIESEL LOCOMOTIVES**

- Basic Features and troubleshooting of HHP locomotives
- Preventive maintenance schedules
- Latest design improvements in diesel locomotives to reduce failures on line.
- Features of GE Locomotives
- Design improvements in bogies to make them fit for high speed operation
- Air Brake system of diesel locos including working of compressors and vigilance control devices and their maintenance
- Cooling water system of diesel engines

- Fuel oil system of diesel engines
- Control of lubricating oil consumption
- Safety devices used on diesel engines and locomotives
- Trouble shooting on locomotives running on the railways
- Fuel Economy on diesel locomotives
- Thermal loading of engine components
- Under gear maintenance
- Suspension bearings, wheels
- Electric Systems of Diesel Locomotive
- Load Box Testing
- MEMU ,DEMUs-types, systems & trouble shooting
- Basics of DPRS ( Distributed Power Rolling Stock)
- Introduction to GM Locomotives and its systems

### CARRIAGE & WAGON

Coaching stock- preventive maintenance schedules in Coaching Depots including IOH.POH, SS2, SS3 Schedules in shops

- Wagon Stock-preventive maintenance including ROH in depots and POH Schedule in shops ,Ride Index, Anti Telescopic features
- IRCA Rules for reject able defects
- ICF & LHB Coach Bodies and their maintenance in sick line/shops
- Generic details of train set
- Casnub Bogie & its modifications for high speed
- Corrosion repairs to caching and goods stock
- Couplers & Draw gear, Train Parting , Brake Binding & measures to avoid the same
- Water availability in coaches
- Fire prevention on Trains
- Air Brake System-Twin Pipe & single pipe. Under frame & bogie mounted brake system, Test rig, Checking timings, trouble shooting, DV defects, slack adjustment methods. Brake Binding, WSP system, FIBA, Air spring suspension in LHB coaches
- Passenger amenity items
- OBHS , CTS and other coach cleaning systems
- Maintenance Pattern of freight trains including CC Rakes & Coaching stock maintenance including Revised Policy Circular-4
- Neutral Train Examination
- Maintenance of various components like DV, SAB, PEASD
- Latest design improvements of Carriage & Wagons to improve their performance and speed potential
- LHB Coaches & BLC Wagons
- Construction, Design & Maintenance of special purpose Wagons

### WORKSHOPS and Production Units

- System of labour accountal GA Cards for time keeping documents, tally sheets, Job/Route Cards, inspection & rate fixing
- Rules & Calculations under incentive scheme
- Paints & painting systems
- Different types of machine tools such as lathes, milling machines, shapers, planers, cutting tools & cutting speeds
- CNC machines
- CLW Pattern of Incentive Scheme, Group Incentive Scheme
- Different types of welding processes, welding defects
- Wheels, tyres & axles and their ultrasonic testing
- Heat treatment of ferrous items such as surface hardening, annealing, normalizing etc
- Roller Bearing & Cartridge Bearings
- Injury free features in coaches
- Material handling
- Design of coaches and wagons
- Basic concepts of casting and Heat treatment methods
- Manufacturing and Heat treatment process of wheels and axles
- Factory Layout
- Process flow chart of Production Units
- Machinery and Plant maintenance

### **Rajbhasha**

Optional questions of 15 marks

## Syllabus for Financial Rules:

1. Parliamentary Control over Railway Finance, Public Accountability, Cannons of Financial Propriety.
2. Railway Budget - Budgetary terms, Types of Budgets, Budget cycle, Demand of Grants, Budgetary and Financial Reviews.
3. Rules of Allocation - Classification of expenditure - Control of expenditure - Responsibility Accounting - Performance Budgeting - Exchequer Control - Financial Results of Working lines.
4. Works Programme - Financial justification of Works - Surveys - Preparation of Estimates - Capital Budget - Control over Capital Expenditure - Reappropriation of Funds.
5. Financial control over Stores Expenditure - Purchase and Stores Keeping Procedure - Inventory Control and ABC Analysis.
6. Financial & Cost Control in Railway Workshops/Sheds/Units.
7. Rules and procedure relating to Tenders and contracts for execution of works and Procurement of Stores, M&P Programme and RSP.
8. Procedure for Possessing and finalizing Audit Objections and Draft Paras.
9. Delegation of Powers.
10. Losses, Frauds and Embezzlements.
11. General Financial Rules
12. Government e-Market (GeM)
13. Classification of Railway Revenue (Earnings)
14. Information Technology in general with specific reference to Railway's IT Applications
15. Taxation matters with special focus on GST & Income Tax
16. Organization of CGA and C&AG
17. Any other topic felt necessary from time to time

## Syllabus for promotion to Group- B posts - 70% selection and 30% LDCE.

### Syllabus for Establishment Rules:

1. Organization of the Personnel Department in Railways objectives functions and policies of Personnel Department.
2. Recruitment and Training, Classification of Services, Recruitment in Different services, Railway Recruitment Boards & Railway Recruitment Cells Compassionate Ground Appointments, Initial & In Service Training, Refresher Courses, Central Training Institutes, Training Centers in Zones, Divisions & Workshops, Training Modules for different posts, Training under Apprentices Act, Online Training, APARs.
3. General conditions of service in Railways, Seniority, Lien, Inter Railway & Inter Division transfers, Deputation, Promotion Policy & methods. Selection, Suitability, Trade Tests, Leave Rules, Pass Rules, Joining Time Reservation policy, HOER, Overtime, Payment of wages, current CPC Pay Rules, Advances in Railways.
4. Manpower planning, Rightsizing & Benchmarking, creation, extension and surrender of posts, creation of posts against new assets, different types of posts including workcharged posts.
5. The Railway Servants (Discipline & Appeal) Rules, 1968 and related instructions.
6. The Railway Services (Conduct) Rules, 1966 and related instructions.
7. Retirement benefits, qualifying service, pension, family pension, commutation gratuity, new pension scheme.
8. Staff welfare, SBF, Railway institutes, Railway schools, Ex-gratia payment, Incentive Bouns Scheme, Staff Grievances Redressal Mechanisms.
9. Industrial relations in Railways, recognized trade unions, industrial disputes. The Industrial Disputes Act, 1947. The Industrial Relations Code, 2020. The Trade Unions Act, 1926, PNM, PREM, JCM, Various Associations & Informal Meetings.
10. The Factories Act, 1948. The workmen's Compensation Act, 1923. Functions of Labour Enforcement Officers, Right to Information Act.
11. The scope of Information Technology in Railway e – office. HRMS, IPAS , LIMBS, ARPAN, CPGRAMS, ANUBHAV etc.

**SYLLABUS FOR PROMOTION TO GROUP 'B' POST OF ADME/AWM THROUGH  
30% LDCE IN MECHANICAL DEPARTMENT**

Paper will be of two parts one part will be of General questions comprising questions from General Knowledge, Quantitative aptitude, Applied Mechanics, General Science Information Technology and EnHM and other sections comprising of questions from establishment, financial rules and Stores will be and Technical questions from four streams of Mechanical Department. Questions on PU are included in workshop segment. Question on Rajbhasha will be of optional nature of fifteen marks

**Section A**

**GENERAL PORTION-**

**GENERAL KNOWLEDGE**

This section would contain questions of general interest and importance which is acquired by general observation and reading without specific text book study. Subjects of national importance as well as achievements of railways will also be covered. The standard of General Knowledge shall not be more rigorous than Matriculation.

**Quantitative Aptitude**

- Arithmetic & Statistical Operations Graphs, Fractions, Percentage, Sampling & Averages
- Geometry-Area & volume upon Higher Secondary/Class 12 Standard
- Algebra, simultaneous equations etc upon Higher Secondary/Class 12 Standard
- Questions on General quantitative aptitude

**Applied Mechanics**

Various Engineering materials and their properties, Bearings, Stress & Strain, Fatigue, Hardness, Corrosion & Surface finish.

**General Science**

- Mechanics: Newton's Laws of Motion, Velocity & Acceleration, work, energy, power, Archimedes Principle etc.
- Temperature & its measurement
- Mechanics Velocity & Acceleration, work done & horse power etc upon Higher Secondary/Class 12 standard
- Heat & Work, Expansion of Solids Liquids & Gases
- IC Engines, Gas Turbines, Heat Recovery & Thermal Efficiency, Supercharging & Intercooling
- Ohm's Law, Coulombs Law, Faraday's Laws, Voltage, Current & Resistance, wet & dry batteries, power factor
- Simple Motors & Dynamos-Principle & working, transformer, relay, fuse, circuit breakers
- Power Supply, AC & DC, Rectification

**INFORMATION TECHNOLOGY**

Familiarity with Personal Computer Specs- Processor, RAM, Hard Disk, Floppy, CD, Multimedia etc.

- Basic MS Word, Excel and Power Point

- Basic Local Area Networks: Servers, Hubs, Switches, Structured Cabling, Nodes, Network applications
- Using Internet: Email, Browsing, Searching
- General Information on various portals used in Indian Railways including GEM,UDM,IREPS,FMM,E Office etc.

### EnHM

- Environment, Quality Management Systems ISO 9000 & ISO 14000
- Environment management system (ISO 14001),
- solid waste management rules
- CTE ( Consent to Establish) CTO, ( Consent to operate)
- Water act, air act,
- hazardous waste management act
- water policy of Indian Railways

### **Section B**

Part-A consists of questions from Establishment ,Financial rules & Stores.

Part-B Contains Professional portion in Four sections representing various streams of Mechanical Branch – Division & Workshop Management, Diesel Locomotives, Carriage & Wagon and Workshops,

### **PART-A (Stores Rules)**

### STORES

- Classification of Stores
- Procedure of drawal of Stores
- Indenting Procedures
- Procurement methods-Local purchase, Spot purchase, Bulletin tender, Advertised tender, Limited tender, Tender Committee, Direct Purchasing
- Schedule of Powers
- Incoming inspection requirements  
Scrap disposal

### **PART-B-Professional Portion-**

### DIVISIONAL WORKING & OPERATIONS MANAGEMENT

- Working Time Table
- Working in Control Office including Passanger grievance redressal portals e.g. Rail Madad
- Accident Classification, definitions, ART Ordering, Role of Supervisors & officers at accident site Management. ,Accident investigation including proforma for measurement
- 140 ton Crane Construction & safety in operations

### DIESEL LOCOMOTIVES

- Basic Features and troubleshooting of HHP locomotives
- Preventive maintenance schedules
- Latest design improvements in diesel locomotives to reduce failures on line.
- Features of GE Locomotives
- Design improvements in bogies to make them fit for high speed operation
- Air Brake system of diesel locos including working of compressors and vigilance control devices and their maintenance
- Cooling water system of diesel engines
- Fuel oil system of diesel engines
- Control of lubricating oil consumption
- Safety devices used on diesel engines and locomotives
- Trouble shooting on locomotives running on the railways
- Fuel Economy on diesel locomotives
- Thermal loading of engine components
- Under gear maintenance
- Suspension bearings, wheels
- Electric Systems of Diesel Locomotive
- Load Box Testing
- MEMU , DEMUs-types, systems & trouble shooting
- Basics of DPRS ( Distributed Power Rolling Stock)
- Introduction to GM Locomotives and its systems

## CARRIAGE & WAGON

Coaching stock- preventive maintenance schedules in Coaching Depots including IOH.POH, SS2, SS3 Schedules in shops

- Wagon Stock-preventive maintenance including ROH in depots and POH Schedule in shops , Ride Index, Anti Telescopic features
- IRCA Rules for reject able defects
- ICF & LHB Coach Bodies and their maintenance in sick line/shops
- Generic details of train set
- Casnub Bogie & its modifications for high speed
- Corrosion repairs to caching and goods stock
- Couplers & Draw gear, Train Parting , Brake Binding & measures to avoid the same
- Water availability in coaches
- Fire prevention on Trains
- Air Brake System-Twin Pipe & single pipe. Under frame & bogie mounted brake system, Test rig, Checking timings, trouble shooting, DV defects, slack adjustment methods. Brake Binding, WSP system, FIBA, Air spring suspension in LHB coaches
- Passenger amenity items
- OBHS , CTS and other coach cleaning systems

- Maintenance Pattern of freight trains including CC Rakes & Coaching stock maintenance including Revised Policy Circular-4
- Neutral Train Examination
- Maintenance of various components like DV, SAB, PEASD
- Latest design improvements of Carriage & Wagons to improve their performance and speed potential
- LHB Coaches & BLC Wagons
- Construction, Design & Maintenance of special purpose Wagons

### WORKSHOPS and Production Units

- System of labour accountal GA Cards for time keeping documents, tally sheets, Job/Route Cards, inspection & rate fixing
- Rules & Calculations under incentive scheme
- Paints & painting systems
- Different types of machine tools such as lathes, milling machines, shapers, planers, cutting tools & cutting speeds
- CNC machines
- CLW Pattern of Incentive Scheme, Group Incentive Scheme
- Different types of welding processes, welding defects
- Wheels, tyres & axles and their ultrasonic testing
- Heat treatment of ferrous items such as surface hardening, annealing, normalizing etc
- Roller Bearing & Cartridge Bearings
- Injury free features in coaches
- Material handling
- Design of coaches and wagons
- Basic concepts of casting and Heat treatment methods
- Manufacturing and Heat treatment process of wheels and axles
- Factory Layout
- Process flow chart of Production Units
- Machinery and Plant maintenance

### Rajbhasha

Optional questions of 15 marks

## Syllabus for Financial Rules:

1. Parliamentary Control over Railway Finance, Public Accountability, Cannons of Financial Propriety.
2. Railway Budget - Budgetary terms, Types of Budgets, Budget cycle, Demand of Grants, Budgetary and Financial Reviews.
3. Rules of Allocation - Classification of expenditure - Control of expenditure - Responsibility Accounting - Performance Budgeting - Exchequer Control - Financial Results of Working lines.
4. Works Programme - Financial justification of Works - Surveys - Preparation of Estimates - Capital Budget - Control over Capital Expenditure - Reappropriation of Funds.
5. Financial control over Stores Expenditure - Purchase and Stores Keeping Procedure - Inventory Control and ABC Analysis.
6. Financial & Cost Control in Railway Workshops/Sheds/Units.
7. Rules and procedure relating to Tenders and contracts for execution of works and Procurement of Stores, M&P Programme and RSP.
8. Procedure for Possessing and finalizing Audit Objections and Draft Paras.
9. Delegation of Powers.
10. Losses, Frauds and Embezzlements.
11. General Financial Rules
12. Government e-Market (GeM)
13. Classification of Railway Revenue (Earnings)
14. Information Technology in general with specific reference to Railway's IT Applications
15. Taxation matters with special focus on GST & Income Tax
16. Organization of CGA and C&AG
17. Any other topic felt necessary from time to time

## Syllabus for promotion to Group- B posts - 70% selection and 30% LDCE.

### Syllabus for Establishment Rules:

1. Organization of the Personnel Department in Railways objectives functions and policies of Personnel Department.
2. Recruitment and Training, Classification of Services, Recruitment in Different services, Railway Recruitment Boards & Railway Recruitment Cells Compassionate Ground Appointments, Initial & In Service Training, Refresher Courses, Central Training Institutes, Training Centers in Zones, Divisions & Workshops, Training Modules for different posts, Training under Apprentices Act, Online Training, APARs.
3. General conditions of service in Railways, Seniority, Lien, Inter Railway & Inter Division transfers, Deputation, Promotion Policy & methods. Selection, Suitability, Trade Tests, Leave Rules, Pass Rules, Joining Time Reservation policy, HOER, Overtime, Payment of wages, current CPC Pay Rules, Advances in Railways.
4. Manpower planning, Rightsizing & Benchmarking, creation, extension and surrender of posts, creation of posts against new assets, different types of posts including workcharged posts.
5. The Railway Servants (Discipline & Appeal) Rules, 1968 and related instructions.
6. The Railway Services (Conduct) Rules, 1966 and related instructions.
7. Retirement benefits, qualifying service, pension, family pension, commutation gratuity, new pension scheme.
8. Staff welfare, SBF, Railway institutes, Railway schools, Ex-gratia payment, Incentive Bouns Scheme, Staff Grievances Redressal Mechanisms.
9. Industrial relations in Railways, recognized trade unions, industrial disputes. The Industrial Disputes Act, 1947. The Industrial Relations Code, 2020. The Trade Unions Act, 1926, PNM, PREM, JCM, Various Associations & Informal Meetings.
10. The Factories Act, 1948. The workmen's Compensation Act, 1923. Functions of Labour Enforcement Officers, Right to Information Act.
11. The scope of Information Technology in Railway e – office. HRMS, IPAS , LIMBS, ARPAN, CPGRAMS, ANUBHAV etc.