

Modern Coach Factory, Raebareli

Office of the
General Manager (P)

No. E/NG-III/MCF/RBL/Prom./JE/IT(Part-1)

Dated 07.02.2023

NOTIFICATION

**Sub: Selection for the post of JE/IT, in Pay Matrix, Level-6 (G.P-4200/-) against 60%
Departmental Selection Quota in IT Department.**

- Ref: i) Railway Board's L. No. 2002/AC-II/37/8 Dated 17.11.2004 (RBE 42/2004)
ii) Railway Board's L. No. 2002/AC-II(CC)/37/8 Dated 16.11.2006 (RBE 60/2006)
iii) Railway Board's L. No. 2014/AC-II(CC)/37/3 Dated 11.09.2014 (RBE 23/2014)
iv) Railway Board's L. No. E(NG)I-1999/PM7/17 dated 09.06.2010 (RBE 85/2010)
v) Railway Board's L. No. E(NG)I-1999/PM7/17 dated 14.06.2011
vi) Railway Board's L. No. E(NG)I-2005/PM1/52 dated 22.08.2006 (RBE 117/2006)
vii) Railway Board's L. No. E(NG)I-2018/PM1/4 dated 14.12.2018 (RBE No.196/2018)
viii) Railway Board's L. No. E(NG)I-2018/PM1/4 dated 14.06.2019 (RBE No.97/2019)
ix) Railway Board's L. No. E(NG)I-2018/PM1/4 dated 14.11.2019 (RBE No. 194/2019)
x) Railway Board's L. No. 88-E(SCT)I/42/2 dated 08.04.1991(RBE 71/91)
xi) Railway Board's L. No. E(NG)I-75-PMI-44 dated 31.05.1982
xii) Railway Board's L. No. E(NG)I-2011/PM1/26 dated 06.02.2014 (RBE 17/2014)
xiii) Railway Board's L. No. E(NG)I/2019/PM 4/8 dated 01.07.2022 (RBE 74/2022)
xiv) Master Circular 31

It has been decided by the competent authority to hold the selection for the post of JE/IT in pay Matrix level-6 of 7th CPC(GP-4200) against 60% Departmental Selection Quota to form a panel of eligible candidates. Accordingly options are invited from eligible willing candidates of MCF/RBL who fulfil the following terms and conditions:

Total No. of Posts: 03 (UR=01, SC=00, ST=01,PWBDs=01)

Eligibility Criteria

1. Regular serving staff in any department of MCF in group 'C' working in pay scale below the pay scale Rs. 9300-34800 + GP. Rs. 4200/- (Level-6 in 7th CPC) with a minimum of 5 years regular service. All erstwhile, group 'D' categories in G.P. 1800/- since upgraded as group 'C' are also eligible for this selection.
{Authority : Rly. Board L. No. E(NG)I-2010/PM1/22. Dated 03.01.2014 (RBE 02/2013) & L. No. 2014/AC-II(CC)/37/3 Dated 11.09.2014 (RBE 23/2014)}
2. Employee must be below 47 years of age as on the date of notification (05 Years relaxation for ST category candidates).
{Authority : Rly. Board L. No. E(NG)I-1999/PM7/17 dated 09.06.2010 (RBE 85/2010) & L. No. E(NG)I-1999/PM7/17 dated 14.06.2011}
3. The cut off date for determining the eligibility of staff viz service condition, age and educational qualification is the date of issue of this office notification i.e. as on 07.02.2023.
{Authority : Rly. Board L. No. E(NG)I-2005/PM1/52 dated 22.08.2006 (RBE 117/2006)}

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07-02-23



Prescribed Qualification

4. All serving employees having the qualification of PGDCA/B. Sc. (Computer Science)/ BCA/DOEACC 'A' Level Course of Three Year duration or equivalent from recognized University/Institute as prescribed by Railway Board time to time.
{Authority : Rly. Board L. No. 2002/AC-II/37/8 Dated 17.11.2004 (RBE 42/2004)}

Mode of Selection and Qualifying Marks

5. Above Selection will comprise written examination followed by scrutiny of service record and APARs of last 03 years of the candidate who will qualify in the written test. The employees must secure 60% of marks in professional ability as well as in the aggregate. In the case of ST employees must secure 50% marks in Professional ability as well as in the aggregate for empanelment against ST vacancy.

The same relaxed standard should be applied for all the PwBD candidates with benchmark disabilities, irrespective of whether they belong to the Unreserved/SC/ST/OBC category. No further relaxation of standards will be considered or admissible in favour of any candidate from any category whatsoever. **The panel will be formed strictly in order of merit.**

(Authority : Rly. Board L. No. E(NG)I-2011/PM1/26 dated 06.02.2014 (RBE 17/2014) & Para 8 of Master Circular 31) & E(NG)I/2019/PM 4/8 dated 01.07.2022 (RBE 74/2022)

Procedure for written examination:

6. Examination will be held in the form of written test. The time of written examination will be 120 minutes and all the questions will be of objective type, out of which 10% questions will be from the Rajbhasha. There shall be negative marking for incorrect answers. One third of the marks allotted for each question will be deducted for every wrong answer.
{Authority: Rly. Board's letter No. E(NG)I-2018/PM1/4 dated 14.12.2018 (RBE No.196/2018), L. No. E(NG)I-2018/PM1/4 dated 14.06.2019 (RBE No.97/2019), L. No. E(NG)I-2018/PM1/4 dated 14.11.2019 (RBE No. 194/2019) & Master Circular 31 Para 7.3}

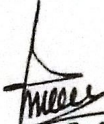
Syllabus:

7. The syllabus of the written examination for this selection is enclosed herewith in Annexure-I.

Last Date for Submission of Application:

8. Last date for submission of application is **07.03.2023**
9. Eligible employees can send their application in the attached format as Annexure-II by **07.03.2023** to participate in the above selection. Incomplete applications will be rejected without any notice and no representation shall be entertained in this regard.
10. In-charges/Controlling Officers are requested to circulate the notification for wide publicity amongst the staff working under their administrative control and on receipt of the application, the same may be sent to the undersigned on or before the cut off date, i.e. **07.03.2023** Applications received after target date will not be entertained. Staff concerned who intend to apply for the subject selection may be advised to keep themselves in readiness to appear in the written examination at a short notice.

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07-02-23



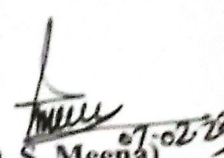
Date of Written Examination:

11. The date, venue and time of written examination will be intimated separately. Staff concerned are advised to keep themselves in readiness to appear in the written test at a short notice. **However, it is advised to the volunteering staff that there will be no supplementary examination for the absentees in the main examination.**

Other :

12. The Incharges/Controlling Officer are requested to send the application through proper channel to undersigned **on or before 07.03.2023.**
13. This Notification is also available on MCF/RBL website **<https://mcf.indianrailways.gov.in/>**

DA: As Above.


(D. S. Meena)
Assistant Personnel Officer/Staff
MCF, Raebareli

Copy to:-

1. Secy. To GM/MCF/RBL : for Kind information to GM/MCF/RBL.
2. CME/IT/MCF/RBL.
3. All HOD/MCF/RBL.
4. Secy. To PCME./MCF/RBL.
5. All Dy. HOD/MCF/RBL.
6. Dy. CME/IT/MCF/RBL.
7. PS to PCPO: to upload in the website/Mobile APP of MCF/RBL (**<https://mcf.indianrailways.gov.in/>**).
8. All Notice Board of Main Admin, Mini Admin & Shop Floor.
9. General Secy./SC/ST Association, General Secy./OBC Association/MCF/RBL.
10. CS&WLI, S&WLI/MCF/RBL



अनुक्रम-170

SYLLABUS FOR THE SELECTION OF JE-IT

Establishment Rules: Establishment Rules covering the knowledge about Leave & pass Rules, Pension Rules, D&AR, Retirement benefits, Service Conduct & Rajbhasha etc.

Fundamentals of Computer Hardware: Number Systems including Binary, Decimal and Hexadecimal. Binary arithmetic and Boolean Algebra. Logic circuits including Sequential and combination logic circuits. Synchronous Logic circuits and their relevance in computers. Block diagram of computer including Motherboard, microprocessors, computer memory (RAM, ROM etc), Secondary storage, I/O units, I/O Interfaces. Ways to reduce processor load related to I/O including Direct Memory Access, hardware and software interrupt. Microprocessor architecture.

Programming: Algorithms represented as Flowcharts. Low level programming including microinstructions in CISC processors, instruction sets and assemblers. Basics of Compilers for high level programming including Loaders and Linkers, Macro Processors and function library. Familiarity with at least one Software development kit and knowledge of the following:

- a) **JAVA** and Internet: Support systems and environment; JVM, program structure. Class, Objects, Constructors, Overloading, Inheritance. Thread including Class, Methods, Thread Priority and Synchronization. Applets including Executable Applet, Adding Applet to HTML, passing Parameters to Applets. Programming for cloud based applications including concept of containers and servlets. Basics of JavaScript.
- b) **C /C++ Language** Structure, Loop, Control Statements, Arrays, Pointers, Functions, Structure and Union, Files. Object oriented Programming, Data Structures, Stack, Queue, Pointers, Linked List, and Searching & Sorting Algorithms.
- c) **Data Base and Application Development:** Modeling of real life Data including normalization upto BCNF and E-R Diagrams. RDBMS concepts including tables, integrity constrains & triggers, Relational Algebra, SQL statements/commands, including report generation, DDL, DML PL/SQL, Functions. Database security issues including role of database administrator, Roles & privileges of users, DCL.
- d) **System administration** on a server based Operating System: OS Features & Basic Architecture. Various types of OS including windows and Unix. Concepts of Real time, multitasking, paging & swapping, file permissions, filters, pipes, signals/semaphores in UNIX, shell script/batch file. System Administration including Role of System Administrator, Managing User Accounts including space allocation and permissions.
- e) **Web-based** application development & hosting. Development of mobile based applications connecting to a web-server. Programming using Python language.


(Dy.CME/IT)

उप मुख्याधिकारी अभियन्ता/आईटी
Mr. Chief Mechanical Engineer/IT
Tern Coach Factory
Bareilly (U.P.)

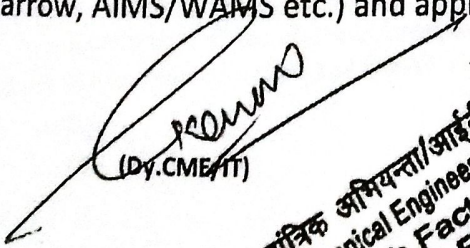
System Analysis and Design: Software Development Life Cycle (SDLC), Data flow Diagram (DFD), Structured Systems, Analysis & design (SSAD) concepts. System components; system planning; Fact finding techniques; Tools for documenting procedure and decisions; Structured Analysis: Data flow analysis; flow diagrams; Data dictionary; Application Prototype: System Design: software development specification

Software Engineering: Software life cycle models. Software Requirements including Functional and non-functional. Software Design Concepts and Principles including user interface design, information output & its presentation, system design, version control including SCM. Software Project Management including cost estimation and CASE tools. Software development process including prototyping, verification and functional. Software testing including automated testing, unit, integration and functional testing.

Networking and data transmission: Binary encoding including ASCII, EBCDIC, base64 and BCD. Fundamentals of Data communications including network topologies, OSI reference model. Data Transmission including Digital to Digital media Conversion, Digital to analog Conversion, media, bandwidth, signal attenuation w.r.t. baud rate, types of multiplexing and Ethernet. Network devices like repeaters, modems, switches, hubs, routers and ADSL/DSL/VDSL. Error detection and correction including VRC, LRC & CRC. Internet basics including TCP/IP protocol, ftp, telnet, SMTP/POP/IMAP etc. Role of various players/infrastructure like Internet Service Provider, Backbones, Network Access Points, URL, Domain Names, Email, Web Server and Proxy Server, Dark & Deep Web, Web Caches. Security issues and solutions including Internet Viruses, Internet Firewall, intrusion prevention system, Data Encryption, Digital Signatures and Certificates.

Emerging Fields: Basic idea of Machine Learning, AI algorithms, Image processing, Big data, data mining and analytics, quantum computing & pattern recognition.

Understanding of MCF applications and enterprise computing environment.: Role of various web based applications developed for Indian railways (HRMS, IREPS, IMMS, E-Office, Sparrow, AIMS/WAMS etc.) and applications developed by MCF including ERP.


(Dy. CME/IT)
उप मुख्य यंत्रिक अभियन्ता/आईटी
Dy. Chief Mechanical Engineer/IT
Modern Coach Factory
Rae Bareilly (U.P.)

PROFORMA

Annexure-II

To,

APO/Staff,
MCF/RBL.

Sub: Application for Appearing in the written examination for selection to the post of
JE/IT, in Pay Matrix Leve-6 (G.P.-4200/-) against 60% (DP) Departmental Selection Quota.

Ref :- Notification No. E/NG-III/MCF/RBL/Prom/JE/IT dated 07.02.2023

1. Name :
2. Emp. No. :
3. Present Designation & Trade :
4. Date of Appointment in Present Grade/Post :
5. Pay Matrix Level :
6. Mobile No. :
7. Date of Birth :
8. Age on D. O. Notification : _____ years _____ months _____ days
9. Date of appointment and Designation on 1st Appointment :
10. Total Length of Regular Service in Group C on D. O. N. (L-1 to L-5) : _____ years _____ months _____ days
11. Educational Qualification (Attached proof thereof) :
12. Whether the employee belongs (UR/OBC/SC/ST/PWBDs) :
13. Working Under (Section/Shop & Officer) :
14. Mode of Joining & Date of Joining in MCF

I hereby declare that the particulars furnished by me are true and correct to the best of my knowledge. If the above information given by me is found to be wrong/incorrect, then my candidature is liable to be cancelled and D&AR action can be taken against me.

Date:
Place:

SIGNATURE OF THE EMPLOYEE

FORWARDED BY THE CONTROLLING OFFICER

Date:
Place:


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

FOR OFFICIAL (P. BRANCH) USE ONLY

The details of the service particulars including the educational qualification/service particular have been verified with the Service Records and found correct.

Ch.OS/Establishment.

**Signature of the Concerned Dealer of
P. Branch with designation and date**


07-02-23