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Syllabus

For
RRRB-JE
(Civii/EE/ME/ETC/Auto/IT)

Coaching Provided for:-

- CBSE/ICSE(Std:VI-XII), +2 Science(Int.), Spoken English (GD/PI)
- Banking(PO/Clerical), Pre-Placement Training(PPT)
- SSC (Technical/Non-Technical)
- Railway (Technical/Non-Technical)
- B.Ed. /CT/ OTET/ OSSTET/ CTET (Entrance)
- B.Ed./BPED (Under ACHARYA NAGARJUNA & ANDHRA UNIVERSITY)
- Defence Entrance Exam.

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BSNL,IOCL, HPCL, BPCL,ORDANANCE,DRDO,ONGC & ANY TECHNICAL PSU EXAM.

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Railway Recruitment Board (RRB) JE Exams

Eligibility Criteria:-

Age Limit: Candidates age should be between **18-33** years for Junior Engineer, Depot Material Superintendent, Chemical & Metallurgical Assistant as on **01-01-2019**. The date of birth for candidates for different age groups should be between the dates given below (Both dates inclusive):

SI No	Age Group	Upper Date of Birth			Lower Date of Birth for All Community/Categories
		UR	OBC	SC/ ST	
1	18-33	02-01-1986	02-01-1983	02-01-1981	01-01-2001

Relaxation of Upper age limit:

SI No	Category	Age relaxation
1	Scheduled Caste/ Scheduled Tribe	5 years
2	Other Backward Classes	3 years
3	Persons With Disabilities	10 years
4	Persons With Disabilities (OBC)	13 years
5	Persons With Disabilities (SC/ ST)	15 years
6	Widows, Divorced Women and Women Judicially separated from Husband but not remarried	35 years (UR) 38 years (OBC) 40 years (SC/ ST)
7	Ex-Servicemen	upto the extent of service rendered in Defence, plus 3 years, provided they have put in more than 6 months service after attestation
8	Serving Group "C" and erstwhile Group 'D' Railway Staff, Casual Labour and Substitutes	40 years (UR) 43 years (OBC) 45 years (SC/ ST)

Educational Qualification: Candidates should possess the qualification as follows:

SI	Name of the Post	Educational Qualification
1	Junior Engineer	Three years Diploma in Civil Engineering/Mechanical/ Production/ Automobile / Electrical/ Electronics/ Instrumentation & Control Engineering/ Control/ Tools & Machining/ Tools & Die Making/ Computer Science/ Computer Engineering OR B.Sc in Civil Engineering of three years duration OR (b) a combination of any sub stream of basic streams of Civil Engineering from a Recognized University/ Institute.
2	Junior Engineer (IT)	PGDCA / B.Sc. (Computer Science)/ BCA/ B.Tech. (Information Technology)/ B.Tech. (Computer Science)/ DOEACC 'B' level course of three years duration or equivalent
3	Depot Material Superintendent	Three years Diploma in Engineering in any discipline from a recognized University / Institute.
4	Chemical and Metallurgical Assistant	Bachelor's Degree in Science with Physics & Chemistry with minimum of 45% marks from a recognized University/ Institute.

EXAMINATION FEE:

Candidates applying for the posts in this CEN have to pay the prescribed fee as per their category detailed below:

SI. No.	Candidate Categories	Fee
1	For all candidates except the fee Concession categories mentioned below at <i>Out of this fee of Rs 500/- an amount of Rs 400/- shall be refunded duly deducting bank charges, on appearing in 1st Stage CBT.</i>	Rs 500/-
2	For candidates belonging to SC / ST / Ex-Servicemen / PwBDs / Female / Transgender / Minorities / Economically backward class. <i>This fee of Rs 250/- shall be refunded duly deducting bank charges as applicable, on appearing in 1st Stage CBT.</i>	Rs 250/-

RECRUITMENT PROCESS:

Only single online application **{common to all the notified posts in opted RRB - Junior Engineer (JE), Junior Engineer (Information Technology) [JE(IT)], Depot Material Superintendant (DMS) and Chemical & Metallurgical Assistant (CMA)}** has to be submitted by the candidate through the link provided on the official website of RRBs.

The entire recruitment process shall involve, 1st stage Computer Based Test (CBT), 2nd stage CBT, and Document Verification/ Medical Examination as applicable. Selection is made strictly as per merit, on the basis of CBTs.

The date, time and venue for all the activities viz CBTs and DV or any other additional activity as applicable shall be fixed by the RRB and shall be intimated to the eligible candidates in due course. Request for postponement of any of the above activity or for change of venue, date and shift will not be entertained under any circumstances.

1st Stage CBT (Common for all notified posts of this CEN):

Duration : 90 minutes (120 Minutes for eligible PwBD candidates accompanied with Scribe)

No of Questions : 100

The 1st stage CBT is of screening nature and the standard of questions for the CBT will be generally in conformity with the educational standards and/or minimum technical qualifications prescribed for the posts. The normalized score of 1st stage exam shall be used only for short listing of candidates for 2nd stage exam as per their merit. Candidates who are shortlisted for 2nd stage CBT availing the reservation benefits of a community, PwBD and ExSM shall continue to be considered only against that community for all subsequent stages of recruitment process.

The Questions will be of objective type with multiple choices and are likely to include questions pertaining to:

a. Mathematics :

Number systems, BODMAS, Decimals, Fractions, LCM and HCF, Ratio and Proportion, Percentages, Mensuration, Time and Work, Time and Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry, Trigonometry, Elementary Statistics, Square Root, Age Calculations, Calendar & Clock, Pipes & Cistern.

b. General Intelligence and Reasoning :

Analogies, Alphabetical and Number Series, Coding and Decoding, Mathematical operations, Relationships, Syllogism, Jumbling, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and Decision Making, Similarities and Differences, Analytical reasoning, Classification, Directions, Statement – Arguments and Assumptions etc.

c. General Awareness :

Knowledge of Current affairs, Indian geography, culture and history of India including freedom struggle, Indian Polity and constitution, Indian Economy, Environmental issues concerning India and the World, Sports, General scientific and technological developments etc.

d. General Science :

Physics, Chemistry and Life Sciences (up to 10th Standard CBSE syllabus).

The section wise Number of questions and marks are as below :

Subjects	No. of Questions Stage I	Marks for each Section Stage I
Mathematics	30	30
General Intelligence & Reasoning	25	25
General Awareness	15	15
General Science	30	30
Total	100	100
Time in Minutes	90	

The section wise distribution given in the above table is only indicative and there may be some variations in the actual question papers.

Minimum percentage of marks for eligibility in various categories: **UR -40%, OBC-30%, SC-30%, ST -25%**. These percentage of marks for eligibility may be relaxed by **2%** for PwBD candidates in case of shortage of PwBD candidates against vacancies reserved for them.

2nd Stage CBT:

Short listing of Candidates for the 2nd Stage CBT exam shall be based on the normalized marks obtained by them in the 1st Stage CBT Exam. Total number of candidates to be shortlisted for 2nd Stage shall be 15 times the community wise total vacancy of Posts notified against the RRB as per their merit in 1st Stage CBT. However, Railways reserve the right to increase/decrease this limit in total or for any specific category(s) as required to ensure availability of adequate candidates for all the notified posts.

Duration :120 minutes (160 Minutes for eligible PwBD candidates accompanied with Scribe)

No of Questions:150

Syllabus: The Questions will be of objective type with multiple choices and are likely to include questions pertaining to General Awareness, Physics and Chemistry, Basics of Computers and Applications, Basics of Environment and Pollution Control and Technical abilities for the post. The syllabus for General Awareness, Physics and Chemistry, Basics of Computers and Applications, Basics of Environment and Pollution Control is common for all notified posts under this CEN as detailed below:-

a. General Awareness :

Knowledge of Current affairs, Indian geography, culture and history of India including freedom struggle, Indian Polity and constitution, Indian Economy, Environmental issues concerning India and the World, Sports, General scientific and technological developments etc.

b. Physics and Chemistry: Up to 10th standard CBSE syllabus.

c. Basics of Computers and Applications:

Architecture of Computers; input and Output devices; Storage devices, Networking, Operating System like Windows, Unix, Linux; MS Office; Various data representation; Internet and Email; Websites & Web Browsers; Computer Virus.

d. Basics of Environment and Pollution Control:

Basics of Environment; Adverse effect of environmental pollution and control strategies; Air, water and Noise pollution, their effect and control; Waste Management, Global warming; Acid rain; Ozone depletion.

e. Technical Abilities:

The educational qualifications mentioned against each post shown in Annexure-A, have been grouped into different exam groups as below. Questions on the Technical abilities will be framed in the syllabus defined for various Exam Groups given

Name Discipline	Subjects
Civil & Allied Engineering	Engineering Mechanics, Building Construction, Building materials, Construction of substructure, Building finishes, Building maintenance, Building drawing, Concrete Technology, Surveying, Computer Aided Design, Geo Technical Engineering, Hydraulics, Mechanics of Structures, Theory of structures, Design of Concrete Structures, Design of Steel Structures, Transportation Engineering, Highway Engineering, Environmental Engineering, Advanced Construction Techniques and Equipment, Estimating and Costing, Contracts and Accounts
Electrical & Allied Engineering	Basic concepts, Magnetic Circuit, AC Fundamentals, Measurement and measuring instruments, Electrical Machines, Synchronous Machines, Generation, Transmission and Distribution, Switchgears and Protection, Estimation and costing, Utilization of Electrical Energy, Basic Electronics
Electronics & Allied Engineering	Electronic Components & Materials, Electronic Devices and circuits, Digital Electronics, Linear Integrated Circuit, Microprocessor and Microcontroller, Electronic Measurements, Communication Engineering, Data communication and Network, Computer Programming, Basic Electrical Engg.
Mechanical & Allied Engineering	Engineering Mechanics, Material Science, Strength of Materials, Machining, Welding, Grinding & Finishing Process, Metrology, Fluid Mechanics & Hydraulic Machinery, Industrial Management, Thermal Engineering
Computer Science & Information Technology	PC Software, Computer fundamentals, C Language, Computer Organisation, Information Systems, Data Structure using C++, DBMS fundamentals, System Programming, Operating System using LINUX, Web Technologies and Programming, System Analysis and Design, Data and Network Communication, Java Programming, Software Engineering
Software Engineering	Printing Systems, Printing Materials, Flexo, Gravure and Screen Printing, Printing Finishing Processing, Image Processing, Design & Advertising in Print Media, Sheet fed offset Machines, Publishing Software, Paper and Ink, Colour Separation and Management, Plate Making Methods, Printing Machine Maintenance, Digital Imaging, Web offset Printing, Printer's Accounting and Estimating, Advanced Printing Technologies, Package Technology.

The section wise Number of questions and marks are as below :

Subjects	No. of Questions	Marks for each Section
	Stage-II	Stage-II
General Awareness	15	15
Physics & Chemistry	15	15
Basics of Computers and Applications	10	10
Basics of Environment and Pollution Control	10	10
Technical Abilities	100	100
Total	150	150
Time in Minutes	120	

The section wise distribution given in the above table is only indicative and there may be some variations in the actual question papers. Minimum percentage of marks for eligibility in various categories: **UR -40%, OBC-30%, SC-30%, ST -25%**. This percentage of marks for eligibility may be relaxed by 2% for PwBD candidates, in case of shortage of PwBD candidates against vacancies reserved for them.

Exam Group: 1.Mechanical Engineering,Production Engineering,Automobile Engineering,Manufacturing Engineering, Mechatronics Engineering,Industrial Engineering,Machining Engineering,Tools and Machining Engineering,Tools and Die Making Engineering, Combination of any sub stream of basic streams of above disciplines **2.** Electrical Engineering,Combination of any sub stream of basic streams of Electrical Engineering **3.**Electronics Engineering,Instrumentation and Control Engineering,Communication Engineering, Computer Science and Engineering,Computer Engineering,Computer Science,Information Technology,Combination of sub streams of basic streams of above disciplines.**4.**Civil Engineering,Combination of any sub stream of basic streams of Civil Engineering, B.Sc., in Civil Engineering of 3years duration **5.**Printing Technology/Engineering,Printing Technology **6.**B.Sc.,Chemistry and Physics **7.**BE/B.Tech., (Computer Science),Computer Science and Information Technology,BE/B.Tech., (Information Technology),PGDCA,B.Sc. Computer Science,BCA,DOEACC "B" Level Course of 3 years duration or equivalent

ALL THE BEST

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