



रेलवे भर्ती प्रकोष्ठ, पश्चिम मध्य रेल

Railway Recruitment Cell, West Central Railway

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Website:-www.wcr.indianrailways.gov.in



Notification No. 03/2023 GDCE - ALP/Technicians, JE, Train Manager Category Posts

Date : 31/07/2023

Date of Publication in WCR website	31/07/2023
Opening Date & Time for ONLINE Registration & Filing of Application	03/08/2023
Closing Date & Time for ONLINE Registration & Filing of Application	02/09/2023 at 23:59 Hrs

ONLINE APPLICATION FOR GENERAL DEPARTMENTAL COMPETITIVE EXAMINATION (GDCE)

Railway Recruitment Cell, WCR/Jabalpur invites ONLINE applications from regular and eligible employees (except RPF) of West Central Railway for filling up the following posts of ALP/Technicians, Junior Engineer (JE), Train Manager Category Posts against GDCE Quota as per vacancies indicated below:

1.0 DETAILS OF VACANCIES AT A GLANCE

A. ALP/Technicians Category Posts

Cat. No.	Name of the post	Level in 7 th CPC	Initial pay (Rs.)	Medical Standard	Number of Total Vacancies				
					UR	SC	ST	OBC	Total
1.	ASSISTANT LOCO PILOT	2	19900	A-1	193	40	22	24	279
2.	Technician Grade - III (DSL/ Electrical)	2	19900	B-1	04	01	01	03	09
3.	Technician Grade- III (Signal)	2	19900	B-1	04	01	01	02	08
4.	Technician Grade - III (Track Machine)	2	19900	A-3	09	03	02	05	19
5.	Technician Grade- III (Tele)	2	19900	B-1	07	02	01	04	14
6.	Technician Grade- III (TRS)	2	19900	B-1	20	04	02	05	31
Grand Total									360

B. JE Category Posts

Cat. No.	Name of the post	Level in 7 th CPC	Initial pay (Rs.)	Medical Standard	Number of Total Vacancies				
					UR	SC	ST	OBC	Total
7.	Junior Engineer (P Way)	6	35400	A-3	10	03	01	06	20
8.	Junior Engineer (C & W)	6	35400	B-1	03	01	01	01	06
9.	Junior Engineer (TRD)	6	35400	A-3	03	01	00	02	06
10.	Junior Engineer (TRS)	6	35400	A-3	03	01	00	02	06
Grand Total									38

C. Train Manager Category Posts

Cat. No.	Name of the post	Level in 7 th CPC	Initial pay (Rs.)	Medical Standard	Number of Total Vacancies				
					UR	SC	ST	OBC	Total
11.	Train Manager	5	29200	A-2	14	04	01	07	26

Note : 1- The detailed Post Parameters (Qualification, Medical Standard and Suitability of the post for PwBD etc.) of various posts are included in this Notification at [Annexure A](#).

2- The above medical standard is indicative and not exhaustive and applicable to candidates in general. The candidates are advised to read Chapter 5 of Indian Railway Medical Manual (IRMM) Volume I which can also be accessed at www.indianrailway.gov.in. Candidates who have undergone Lasik surgery or any other surgery procedure to correct refractory error are not eligible for the post having Medical Standard A-1, A-2 & A-3.

Candidates are advised to ensure that they are eligible as per the medical standards for the post. In case of failure of the candidate to pass the prescribed medical fitness for the post, he will not be considered suitable for empanelment for that post.

2.0 IMPORTANT INSTRUCTIONS - ONLINE REGISTRATION & SUBMISSION OF APPLICATION

2.1 Candidates should be a regular employee of West Central Railway on 1st July 2023. Candidates, who resign or transferred to other railway from WCR, will not be considered for empanelment.

2.2 Before filling up the online application, candidates are advised to thoroughly read all the instructions and information in the Notification available on the website of WCR www.wcr.indianrailways.gov.in (Path - About us->Recruitment->Railway Recruitment Cell->GDCE Notification No. 03/2023)

2.3 Candidates are advised to visit only official website of the WCR/JBP and be very careful about fake websites and job racketeers.

2.4 Candidates should have their own mobile number, valid & active personal e-mail id and keep them active for the entire duration of recruitment as RRC/WCR shall send all recruitment related communications only through SMS and e-mail till the recruitment is completely over.

Candidates can modify the application particulars except Email ID and Mobile Number, even after submission of application, but within the last date of submission of application. However, after the last date for submission of application (02.09.2023), RRC/WCR shall not entertain any representation for modification of the information furnished in the application.

2.5 Applications are to be submitted "ONLINE ONLY" and through the Railway website www.wcr.indianrailways.gov.in (Path - About us->Recruitment->Railway Recruitment Cell->GDCE Notification No. 03/2023)

2.6 Eligibility of the candidates will be considered only on the strength of the information furnished in the ONLINE Application. Candidates need NOT send printouts of application or Certificates or copies to RRC/WCR concerned by post. If at any stage of recruitment or thereafter, it is found that any information furnished by the candidate in his/her application is false/incorrect or the candidate has suppressed any relevant information or the candidate does not satisfy the eligibility criteria for the post(s), his/her candidature will be rejected forthwith.

2.7 To avoid last minute rush, candidates are advised in their own interest to register and submit ONLINE application much before the closing date since there may be a possibility of inability/failure to log on to the website on account of heavy load on the internet or website during last days of online registration.

RRC/WCR do not accept any responsibility for the candidates not being able to register and/or submit their application within the last day on account of aforesaid reasons or any other reason.

2.8 All regular employees possessing prescribed educational qualification for Direct Recruitment working in grades lower than the grades/pay scale for which GDCE is being

conducted are eligible to appear in GDCE selection for all categories.

- 2.9 All regular employees possessing prescribed educational qualification for Direct Recruitment working in same grade/pay scale for which GDCE is being conducted are eligible to appear in selection for GDCE from non-safety to safety category posts as well as safety to safety category posts.
- 2.10 **RPF/RPSF personnel are not eligible to apply against the GDCE scheme in terms of Railway Board's letter No. E (NG) I/2002/PM2/9 dated 11.08.2003.**
- 2.11 **Allotment of post shall be on the basis of merit cum option. Allotment of post shall be final and binding on the candidate and no appeal will be entertained.**
- 2.12 **Post preference once opted shall be treated as final and no change is permissible at any stage. Since recruitment to three streams are being processed simultaneously, the stages of recruitment will be initiated from the highest Pay Level to lowest Pay Level Posts. Therefore, candidates seeking to be considered for a lower-level Post, has to give an undertaking while submitting the Online application.**

3.0 IMPORTANT INSTRUCTIONS - EXAMINATION PROCESSES

- 3.1 **Malpractices:** Any candidate found using unfair means of any kind in the examination/CBT, sending someone else in his/her place to appear in the examination, attempt to impersonate will be debarred from appearing in all the examinations of all the RRCs & all RRBs for lifetime in addition to departmental disciplinary action. Such candidates are also liable for legal prosecution.
- 3.2 **Banned items:** Electronic gadgets like mobile phones, blue tooth, pen drive, laptops, calculators, wrist watches or any other communication devices or pen/pencil, wallet/purses, belts, shoes and metallic wears including ornaments etc. are strictly NOT allowed inside the exam hall. Any infringement of this instruction shall entail summary rejection besides legal action including debarment from future examinations. Candidates are advised in their own interest not to bring any of the banned items including mobile phones etc. to the venue of the examination, **as arrangements for safe keeping cannot be assured.**
- 3.3 **Stages of Exam:** There shall be single stage Computer Based Test (CBT) followed by Computer Based Aptitude Test (CBAT) (where ever applicable).
- 3.4 **Call Letters:** Candidates will have to download the e-Call Letters, City and Date intimations, and Travel Authority (wherever applicable) from the links provided on the official websites of WCR.

4.0 GENERAL INSTRUCTIONS

- 4.1 The trade/exam group is to be specified by employees having ITI/Act Apprentice/Diploma/Engg. qualification.
- 4.2 Preference of all posts as applied and for which employee is eligible may also be called for.
- 4.3 Minimum percentage of marks for eligibility in various categories: UR-40%, EWS-40%, OBC(Non creamy layer) -30%, SC-30%, ST-25%. These percentages of marks for eligibility may be relaxed by 2% for PwBD candidates in case of shortage of PwBD candidates against vacancies reserved for them.
- 4.4 There will be negative marking and 1/3 mark shall be deducted for each wrong answer.
- 4.5 The PwBD candidates should be provided the Scribe wherever applicable.
- 4.6 In case of two or more candidates securing same marks, their merit position shall be determined by age criteria i.e., older person shall be placed at higher merit and

in case age being same, then alphabetical order (a to z) of the name shall be taken into account to break the tie.

- 4.7 Candidates equal to the number of vacancies will be called for DV based on their merit in CBT and options.
- 4.8 Appointment of selected candidates is subject to their passing requisite Medical Fitness Test to be conducted by the Railway Administration, final verification of educational and community certificates and verification of antecedents/character of the candidates.
- 4.9 Admission to all stages of recruitment process shall be purely provisional, subject to the candidate satisfying the prescribed eligibility conditions.
- 4.10 Mere issue of e-Call letter to the candidates will NOT imply that their candidature has been finally accepted by the RRC/WCR.
- 4.11 RRC/WCR conducts Documents Verification of eligibility conditions with reference to original documents only after the candidates have qualified in all the stages of examinations and are shortlisted for Document Verification. RRC/WCR may reject the candidature of any applicant at any stage of recruitment process. In case the candidate is found not fulfilling the requisite criteria and if appointed, such a candidate is liable to be removed from service summarily.
- 4.12 Before applying for the post(s) against this notification, candidates should satisfy themselves that they fulfill all the eligibility norms including age, educational qualification(s) and medical standard(s). Candidates should ensure that they have requisite educational/technical qualifications from recognized Board/ University/ Institute as on the closing date for online application submission.
- 4.13 Candidates should enter their Name, Father's Name and Date of Birth as recorded in the SSLC/Matriculation/High School Examination Certificate or an equivalent Certificate as well as in their service record. No subsequent request for its change will be considered.
- 4.14 In cases of name change, candidates should indicate their changed name only in the ONLINE application. However, the details should match with the Matriculation or Equivalent certificate as well as Service Record. Date of such change should be prior to the date of submission of ONLINE application.
- 4.15 Gazette Notification or any other legal document as applicable for such cases should be submitted at the time of Document Verification (DV) along with the acceptance letter of employer.
- 4.16 Signatures of the candidates on all documents should be identical in all stages of recruitment process and must be in running hand and not in block/capital or disjointed letters. Signatures in different style at the time of CBT, CBAT, Document Verification; Medical examination etc. may result in cancellation of candidature.
- 4.17 Dates of examinations will be published on the website. The e-call letters for CBT, CBAT should be downloaded only from website. No call letter will be sent by post. The CBT Centre, date and shift indicated in the e-call letter shall be final. RRC/WCR reserve the right to conduct additional CBT/CBAT, and/or additional document verification etc., without assigning any reason. Request for postponement of any of the above activity or for change of venue, date and shift will not be entertained under any circumstances.
- 4.18 Vacancies indicated in this Notification are provisional and may undergo any change (increase/decrease) or even become NIL in total or in specific Units/ Communities/ Posts at a later stage depending upon the actual needs of the Railway Administration. Also, additional posts if required by the Railway may also be included at later stage.

- 4.19 The Railway Administration also reserves the right to cancel the notified vacancies at any stage at its discretion and such decision will be final and binding on all.
- 4.20 The function of the RRC/WCR is to recommend names of suitable candidates to the concerned authorities of the Railway Division who in turn will issue the offer of appointment letter subject to availability of vacancies and candidates satisfying all eligibility criteria.
- 4.21 Selected candidates will have to undergo training, wherever prescribed, and during training period payment will be regulated as per extant rules.
- 4.22 RRC/WCR reserves the right to incorporate any subsequent change/modifications/additions in the terms & conditions of recruitment under this Notification as necessitated and applicable.

5.0 AGE LIMIT

The upper age limit will be 42 years for General candidates (UR), 47 years for SC/ST candidates and 45 years for OBC candidates.

The lower and upper age limit indicated for the post(s) in the Vacancy Table will be reckoned as on 01-01-2024.

Cut-off date of Birth is indicated below:

Age Group	Lower Date of Birth	Upper Date of Birth		
		UR	OBC	SC/ST
	01.01.2006	18 to 42	18 to 45	18 to 47
		02.01.1982	02.01.1979	02.01.1977

Notes :

- No age relaxation is allowed to SC/ST/OBC-NCL (Non Creamy Layer) candidates applying against unreserved vacancies.

6.0 EDUCATIONAL QUALIFICATIONS

Candidates should have requisite minimum educational qualifications indicated for posts of this GDCE Notification 03/2023 from recognized Board/University/Institute as on the closing date for ONLINE application submission as per Annexure 'A'. The candidates should possess the requisite educational qualification on the closing date of application and the same should also be endorsed in the Service Sheet of the employees. Those awaiting results of the final examination of the prescribed minimum educational qualification SHOULD NOT apply.

7.0 VERTICAL RESERVATION

For availing reservation, SC/ST/OBC-NCL candidates should furnish Caste Certificate from competent authorities as per the format given at **Annexure I** (for SC/ST candidates) and at **Annexure II** (for OBC-NCL candidates) at the time of document verification. Further, in case of OBC-NCL candidates, the certificates should specifically indicate that they do not belong to the Persons/Sections (Creamy Layer) mentioned in Column 3 of the Schedule of the Government of India, Department of Personnel and Training O.M.No.36012/22/93-Estt. (SCT) dated 08.09.93 & its subsequent revision through O.M.No.36033/3/2004-Estt. (Res) dated 09.03.2004, 27.05.2013, 13.09.2017 and further revision, if any, received till the closing date of applications submission. The candidates should ensure that they belong to the OBC- Non Creamy Layer (NCL) category while applying for the posts against this Notification. Such candidates should produce a valid OBC certificate in the prescribed format during document verification. Further, in addition to the community certificate (OBC), a declaration in the prescribed format as per

Annexure IIA has to be furnished by the candidates during document verification, that he/she does not belong to the creamy layer. The certificate produce shall not be older than one year at the time of document verification. In case of not complying to these stipulations, their claim for reserved status (OBC-NCL) will not be entertained and the candidature / application of such candidates, if fulfilling all the eligibility conditions for General (Unreserved) category, will be considered under General(UR) vacancies only.

8.0 RECRUITMENT PROCESS

8.1 RECRUITMENT PROCESS: ALP/Technicians

Only single ONLINE application (common to all the notified posts- ALP & Technicians) has to be submitted by the candidate through the link provided on the official website of WCR www.wcr.indianrailways.gov.in (Path - About us->Recruitment->Railway Recruitment Cell->GDCE Notification No. 03/2023). The recruitment process shall involve Computer Based Test (CBT) and Computer Based Aptitude Test (CBAT) and Document Verification/Medical Examination as applicable.

The CBT shall have two parts viz. Part A and Part B as detailed below.

PART-A

Duration: 90 Min. (120 Minutes for eligible PwBD candidates accompanied with Scribe)
No of Questions: 100

The marks scored in Part A alone shall be used for short listing of candidates for further stages of recruitment process subject to the condition that the candidate is securing qualifying mark in Part B.

The syllabus for Part A shall be as below:

- a. Mathematics: Number system, BODMAS, Decimals, Fractions, LCM, HCF, Ratio and Proportion, Percentages, Mensuration, Time and Work; Time and Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry and Trigonometry, Elementary Statistics, Square Root, Age Calculations, Calendar & Clock, Pipes & Cistern etc.
- 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. Basic Science and Engineering: The broad topics that are covered under this shall be Engineering Drawing (Projections, Views, Drawing Instruments, Lines, Geometric figures, Symbolic Representation), Units, Measurements, Mass Weight and Density, Work Power and Energy, Speed and Velocity, Heat and Temperature, Basic Electricity, Levers and Simple Machines, Occupational Safety and Health, Environment Education, IT Literacy etc.
- d. General Awareness on Current Affairs in Science & Technology, Sports, Culture, Personalities, Economics, Politics and any other subjects of importance.

PART-B

Duration: 60 Min.(80 Minutes for eligible PwBD candidates accompanied with Scribe)
No of Questions: 75

Qualifying Mark: 35% (This is applicable to all candidates and no relaxation is permissible)

This part is qualifying in nature and shall have questions from the trade syllabus prescribed by Director General of Employment & Training (DGET). Candidates with ITI/Trade Apprenticeship qualification will be required to appear in the section having questions from the relevant trade. Candidates holding Degree, Diploma having eligibility for the posts of ALP have to select relevant trade from the list of trades listed against their engineering discipline.

Candidates who do not have ITI/Act Apprentice/Diploma qualifications and have qualified 10+2 with Physics and Mathematics will be eligible for the posts of Tech- III/Tele and Tech-III/Sig only. They should choose a special trade "Physics & Maths". If, they choose any other trade, they will not be considered for any of the posts. The Physics & Maths trade shall have questions on Physics and Mathematics of 10+2 standard.

Candidates who do not have ITI/Act Apprentice qualifications but have Diploma/Degree in various specified streams will be considered for the post of ALP only. Such candidates should choose their trades for Part-B of the CBT.

The trade syllabus can be obtained from the DGET website. The relevant trades for various 10+2/diploma/engineering discipline for appearing in the qualifying test is as below

Sl. No.	Engineering Discipline(Diploma/Degree)	Relevant trade for PART B Qualifying Test to be selected from
1	Electrical Engineering and combination of various streams of Electrical Engineering	Electrician/ Instrument Mechanic/ Wiremen/ Winder(Armature)/ Refrigeration and Air Conditioning Mechanic
2	Electronics Engineering and combination of various streams of Electronics Engineering	Electronics Mechanic/ Mechanic Radio & TV
3	Mechanical Engineering and combination of various streams of Mechanical Engineering	Fitter/ Mechanic Motor Vehicle/ Tractor Mechanic/ Mechanic Diesel/ Turner/ Machinist/ Refrigeration and Air Conditioning Mechanic/ Heat Engine/ Millwright Maintenance Mechanic
4	Automobile Engineering and combination of various streams of Automobile Engineering	Mechanic Motor Vehicle/ Tractor Mechanic/ Mechanic Diesel/ Heat Engine/ Refrigeration and Air Conditioning Mechanic
5	HSC (10+2) with Physics and Maths	Physics and Mathematics

Computer Based Aptitude Test (Only for candidates who have opted for ALP)

Qualifying marks: The candidate needs to secure a minimum score of 42 marks in each of the test batteries to qualify. This is applicable to all candidates and no relaxation is permissible.

Candidates equal to 8 times number of ALP vacancies for each of the communities i.e. UR, OBC-NCL, SC and ST (including Ex. SM) shall be short listed for Computer Based AT (based on their performance in Part A of the CBT subject to their qualifying the Part B of CBT) from among the candidates who have opted for the post of ALP.

Candidates will have to qualify in each of the test battery of Computer Based AT for considering them for the post of ALP. The Computer Based Aptitude Test shall have questions and answer options only in English and Hindi. There shall be no negative marking in Computer Based AT.

The ALP merit list will be drawn only from amongst the candidates qualifying in the Aptitude Test, with 70% weightage for the marks obtained in the Part A of Second Stage CBT and 30% weightage for the marks obtained in Computer Based AT.

Candidates are advised to visit websites of RDSO (www.rdsso.indianrailways.gov.in -> Directorates -> Psycho Technical Directorate -> Candidates Corner) for question patterns and other details of AT.

Based on the options and performance of candidates in part-A of the CBT subject to their qualifying the part-B of CBT (for Technician posts) and based on the performance of candidates in both part A of the CBT and Computer Based AT subject to their qualifying the part-B of CBT (for ALP), candidates equal to the number of vacancies will be called for Document verification.

Candidates to be asked for their category preference, and trade in which they will appear in the following format:

1. Post Preference Details

Category No	Designation	Department	Priority
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2. Trade Details (Technicians/Act Appr./Diploma/Engg. to specify the trade in which they are appearing)

Trade

8.2 GDCE PROCESS for Junior Engineer of various departments:

Only single online application {common to all the notified posts in opted RRC/WCR - Junior Engineer (JE) has to be submitted by the candidate through the link provided on the official website of RRC/WCR. The entire recruitment process shall involve Computer Based Test (CBT), and Document Verification/ Medical Examination as applicable. Selection is made strictly as per merit, on the basis of CBT.

CBT:

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:** For technical abilities, refer to Annexure-VII- A to G of CEN No. 03/2018.(Annexure-III- A to D of this Notification)

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

Subjects	No. of Questions	Marks for each Section
General Awareness	15	15
Physics & Chemistry	15	15
Basic 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.

Discipline Mapping Tables:

Sl. No.	Three years Diploma in Engineering or Bachelor's Degree in Engineering/Technology	Exam Group
1.	Mechanical Engineering	Mechanical and Allied Engineering
	Production Engineering	
	Automobile Engineering	
	Manufacturing Engineering	
	Mechatronics Engineering	
	Industrial Engineering	
	Machining Engineering	
	Tools and Machining Engineering	
	Tools and Die Making Engineering	
2.	Combination of any sub stream of basic streams of above disciplines	Electrical and Allied Engineering
	Electrical Engineering	
3.	Combination of any sub stream of basic streams of Electrical Engineering	Electronics and Allied Engineering
	Electronic Engineering	
	Instrumentation and Control Engineering	
	Communication Engineering	
	Computer Science and Engineering	
	Computer Engineering	
	Computer Science	
Information Technology		
4.	Combination of sub streams of basic streams of above disciplines.	Civil and Allied
	Civil Engineering	
	Combination of any sub streams of	

	basic streams of Civil Engineering	Engineering
	B.Sc. in Civil Engineering of 3 years duration	

All the candidates with the above qualification shall be tested in the Exam Group mapped as per the above chart.

A candidate possessing more than one minimum educational qualification, mapped to different Exam Groups, can choose any one Exam Group. These candidates would be eligible for all the posts for which they possess minimum educational qualifications.

NORMALISATION OF THE MARKS:

The raw marks for single session paper and normalized marks for multi session paper will be used for computing Merit Index, which is a common benchmark for generating merit for candidates from different Exam Groups.

CALCULATION OF MERIT INDEX FOR ALL PAPERS

In order to generate a common merit list comprising of candidates who gave examination from different exam groups, but eligible for a common post, merit index will be computed. For all papers for which there is only one session, actual marks obtained by the candidates will be used for calculating merit index, while for papers in multi-sessions; normalized marks will be calculated corresponding to the raw marks obtained by a candidate and the merit index will be calculated based on the normalized marks.

The Merit Index will be computed using the formula given below:

Merit Index	=	Sq+(St -Sq)	$M - M_q$
			$\frac{M - M_q}{M_t - M_q}$

(Merit Index is the relative score of a candidate within the discipline.)

M: Marks obtained by the candidate (actual/raw marks for single session exam and normalized marks for multi session exam. M_q: The qualifying marks for general category candidate in the paper (40).

M_t : The mean marks of top 0.1% or top 10 whichever is larger of the candidates who appeared in the paper (in case of multi session exam including all sessions)

Sq: 350 is the score assigned to M_q.

St: 900 is the score assigned to M_t .

The qualifying marks (M_q) for general category candidate is 40.

The Merit Index will be calculated for UR, OBC, SC, ST candidates whose actual marks for single session exam and normalized marks for multi session exam are equal or above the community qualifying marks prescribed in Para 13.2. Based on the Merit Index generated, a combined merit list of the candidates of different disciplines/Exam Group will be prepared in the descending order of merit and the allotment of the preference will be done on the basis of this merit list.

Candidates to be asked for their category preference, and exam group in which they will appear in the following format:

1. Post Preference Details

Category No	Designation	Department	Priority
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2. Exam Group Details

Exam Group	
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8.3 GDCE PROCESS for Guards/Train Manager.

Only single online application has to be submitted by the candidate through the link provided on the official websites of RRC/WCR. The recruitment process shall involve Computer Based Test (CBT) and Document Verification/Medical Examination. Selection is made strictly as per merit, on the basis of above mentioned recruitment stages.

Computer Based Test (CBT)

Exam Duration in Minutes	No. of Questions (each of 1 mark) from			Total No. of Questions
	General Awareness	Mathematics	General Intelligence and Reasoning	
90	40	30	30	100

The examination duration will be 120 Minutes for eligible PwBD candidates accompanied with Scribe.

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

The standard of questions for the CBT will be generally in conformity with the educational standards prescribed for the posts.

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

a. Mathematics: Number System, Decimals, Fractions, LCM, HCF, Ratio and Proportions, Percentage, Mensuration, Time and Work, Time and Distance, Simple and Compound Interest, Profit and Loss, Elementary Algebra, Geometry and Trigonometry, Elementary Statistics etc.

b. General Intelligence and Reasoning: Analogies, Completion of Number and Alphabetical Series, Coding and Decoding, Mathematical Operations, Similarities and Differences, Relationships, Analytical Reasoning, Syllogism, Jumbling, Venn Diagrams, Puzzle, Data Sufficiency, Statement- Conclusion, Statement- Courses of Action, Decision Making, Maps, Interpretation of Graphs etc.

c. General Awareness: Current Events of National and International Importance, Games and Sports, Art and Culture of India, Indian Literature, Monuments and Places of India, General Science and Life Science (up to 10th CBSE), History of India and Freedom Struggle, Physical, Social and Economic Geography of India and World, Indian Polity and Governance- constitution and political system, General Scientific and Technological Developments including Space and Nuclear Program of India, UN and Other important World Organizations, Environmental Issues Concerning India and World at Large, Basics of Computers and Computer Applications, Common Abbreviations, Transport Systems in India, Indian Economy, Famous Personalities of India and World, Flagship Government Programs, Flora and Fauna of India, Important Government and Public Sector Organizations of India etc.

9.0 HOW TO APPLY

Regular Employees of WCR who fulfills the eligibility criteria, may apply **ONLINE** through WCR website www.wcr.indianrailways.gov.in (Path - About us-

>Recruitment->Railway Recruitment Cell->GDCE Notification No. 03/2023)

- a) Candidates are required to go to the link provided for filling **ONLINE** application and fill up the personal details/BIO-DATA carefully.
- b) Candidates should ensure that their Name, Father's Name and Date of Birth match with the entries recorded in Matriculation or equivalent certificate, as well as service records.
- c) A colour photograph of size 3.5cm x 3.5cm (not older than three months from the date of application) with clear front view of the candidate without cap and sunglasses should be uploaded. The photo should be only in JPEG format. Candidates may note that RRC/WCR may at any stage, reject the application for failing to upload photo or uploading old/unclear photo along with online application or for any significant variations between photographs uploaded along with online application and physical appearance of the candidate. Candidates are advised to bring one copy of the same photograph along with Hall Ticket/e-Call Letter and original valid Photo ID at the time of examination. They are also advised to keep 3 copies of the same photograph for further use.
- d) During submission of ONLINE application, a Unique Registration Number will be generated and issued to each candidate. Candidates are advised to preserve/note their Registration Number for further stages of recruitment process/correspondence.
- e) To avoid last minute rush, candidates are advised in their own interest to submit ONLINE application much before the closing date.

10.0 STEPS TO SUBMIT ONLINE APPLICATION

Before filling up ONLINE application, candidates are advised to keep scanned copy in JPEG format of following documents ready with them :

1. Passport size colour photograph.
 2. Signature
 3. Copy of self-attested certificates in proof of date of birth, education/ technical qualifications, caste.
- a) Visit the website of WCR www.wcr.indianrailways.gov.in (Path - About us->Recruitment->Railway Recruitment Cell->GDCE Notification No. 03/2023).
 - b) Click on the "GDCE Notification No: 03/2023" link.
 - c) Click on the "**New Registration**" link.
 - d) Fill in employee number (**11 digit**) and date of birth and click continue.
 - e) Fill in personal information and e-mail Address and Mobile number. On submission of required details an e-mail/SMS will be received in the registered e-mail ID/Mobile number. Open inbox of your registered e-mail/SMS and note the registration number and password.
 - f) Login using the Registration number & password sent in the e-mail/SMS.
 - g) Follow the instructions and complete the registration process step-by-step.
 - h) Upload the scanned copy of photograph, self-attested certificates in proof of date of birth, education/technical qualifications and caste i.e. SC/ST/OBC.
 - i) Submit the application.

10.1 Documents to be uploaded:

- a) Proof of Date of Birth as mentioned at Para 4.13.
- b) Certificates of Educational Qualification for the post applied.
- c) In the case of SC/ST community candidates, Community certificate issued by the Competent Authority in the prescribe format as per Annexure- I of this Notification.
- d) In the case of OBC community candidates, a valid Community certificate issued by the Competent Authority in the prescribe format as per Annexure-II of this Notification. This Certificate should specifically indicate that the candidate does not belong to the persons/section (Creamy Layer).
- e) Candidates claiming to belong to Other Backward Classes are also required to submit a self declaration in the prescribed format. (Annexure - IIA of this Notification).

10.2 Submission of Application:

In the end candidates have to accept the declaration.

After confirming the above declaration and submission of the application, the candidate may save the file as "PDF" and/or take print of the application and preserve it for future reference and record.

10.3 INVALID APPLICATIONS / REJECTIONS:-

Online applications are liable for rejection on the following grounds amongst others:

- a. **Invalid photos** on account of Black and White photo, photo with cap or wearing Goggles. Photos which are disfigured, small size, full body, showing only one side view of the face, unrecognizable photos, Photostat copy of photo, group photo, selfie photo, photo taken by mobile, morphed photo and online application without photo among others.
- b. Signature in capital/block letters.
- c. Not having proper scanned Photo and scanned Signature.
- d. Not possessing the prescribed qualification for the post(s) as on the closing date for submission of online application.
- e. Over-aged or under-aged or Date of Birth wrongly filled.
- f. Not having proof of Birth as per Para 4.13
- g. Incomplete or incorrectly filled application.
- h. Any other irregularities which are observed and considered as invalid by RRC/WCR.

NOTE: In case the application is rejected, candidates will be able to view their status ONLINE on the website of WCR www.wcr.indianrailways.gov.in (Path - About us->Recruitment->Railway Recruitment Cell->GDCE Notification No. 03/2023) along with the reasons for rejection(s) which is final and binding and no further correspondence shall be entertained on the subject. SMS and email alerts shall also be sent to the candidates on their registered mobile numbers and email IDs, as indicated in their ONLINE application. Candidates will not be intimated by post.

11.0 SPECIAL NOTE:

- Candidates are advised to keep their personal mobile number and personal valid e-mail ID active throughout the recruitment process, as all communications from RRC/WCR will be sent only through SMS/e-mail. RRC/WCR will not entertain any request for change of mobile number and e-mail address at any stage. Candidates are advised to note and preserve their Registration Number for further stages of recruitment process/ correspondence with RRC/WCR concerned.

- Candidates are further advised to visit the official website of WCR www.wcr.indianrailways.gov.in (Path - About us->Recruitment->Railway Recruitment Cell->GDCE Notification No. 03/2023) frequently to get the latest information on various stages of recruitment process or any changes about this Notification.

The onus is on the candidates to prove with valid documents that all the information submitted by them in the ONLINE application are true.

12.0 A colour photograph of size 3.5cm x 3.5cm (not older than three months from the date of application) with clear front view of the candidate without cap and sunglasses should be uploaded. The photo should be only in JPEG format-100 DPI. The size of the uploaded photograph should be upto 70 kb. Employees may note that RRC/WCR may at any stage, reject the application for uploading old/unclear photo along with online application or for any significant variations between photographs uploaded along with online application and physical appearance of the candidate. Employees are advised to bring one copy of the same photograph along with Hall Ticket/e-Call Letter and original valid Photo ID at the time of examination. They are also advised to keep 3 copies of the same photograph for further use. . Also, scanned signature is to be uploaded.

12.1 Specification for Signature Image: The applicant has to sign on white paper with Black Ink pen within a box of size 50 mm x 20 mm. Signature must be in running letters and NOT IN BLOCK LETTERS. The image should be in JPG/JPEG format scanned with 100 DPI resolution. Dimensions of 50 mm x 20 mm or 140 x 60 pixels (preferred).Size of file should be between 10 KB - 40 KB. The applicant's signature obtained during registration and at the time of CBT/ Skill Test /Translation Test /Document verification/Medical should match with the uploaded signature.

13.0 HALL TICKET (e-CALL LETTER) FOR CBTs, Skill Test /Translation Test , Document Verification:

13.1 SMS / e-mail messages will be sent to all eligible candidates about the e-Call letter and upload details on their registered mobile number and e-mail ID. No call letter will be sent by post. However, candidates should regularly visit the official websites of WCR as there can be failure in delivery of SMS/E-mail to the candidates due to reasons beyond control of RRC/WCR.

13.2 Eligible candidates can download e-Call letter through the WCR websites about 10 days before the date of the CBT, Skill Test /Translation Test, DV (as applicable). Call letter will not be sent to candidates by post.

13.3 Candidates should read the instructions on the e-Call letter carefully and follow them scrupulously. Failure to comply with the instructions may lead to cancellation of their candidature.

13.4 Candidates must report with relieving letter, their e- Call letter along with a valid Photo ID, preferably issued by the employer or Voter Card, Aadhaar Card, Driving License, PAN card, Passport, failing which candidates shall not be allowed to appear for the CBT, Skill Test / Translation Test, DV (as applicable). The name, date of birth and photo on ID should match with the details furnished in the online application, failing which the candidate may not be permitted to appear in CBT, Skill Test /Translation Test, DV (as applicable).

13.5 Candidates must also bring one color photograph (of size 35 mm x 45 mm) which was uploaded in the application, for appearing in the CBT, Skill Test /Translation Test, DV(as applicable).

13.6 Candidates should leave blank spaces provided in the downloaded e-Call letter for

writing self-declaration paragraph (as the paragraph will be displayed on the screen during CBT, Skill Test /Translation Test, (as applicable), signature and Left Thumb Impression (LTI) unfilled while coming for the exam.

Warning: Candidates will have to write the paragraph of Self-Declaration, sign and affix LTI at the venue of the CBT, Skill Test /Translation Test, (as applicable) in the presence of the invigilator at the Examination hall ONLY and hand over the same to the invigilator before the conclusion of the examination. Candidates writing the self-declaration paragraph in advance and/or signing in CAPITAL letters will be rejected.

13.7 RRC/WCR will not entertain any request for any change in examination center, date and session allotted to candidate(s).

14.0 VERIFICATION OF ORIGINAL DOCUMENTS AND FORMAT OF CERTIFICATES:

14.1 To ascertain their eligibility as on the closing date for registration of online application, candidates are required to produce all original documents with two sets of self-attested photo copies of all documents at the time of Document Verification.

14.2 All Certificates should be either in English or in Hindi only. Where certificates are not in English / Hindi, self-attested translated version (In Hindi / English) should be produced wherever/ whenever required. Certificates produced during the document verification should be strictly in the prescribed formats.

NOTES

- i. Candidates who wish to be considered against vacancies reserved/or seek age-relaxation must submit the requisite/relevant certificate in original from the competent authority, in the prescribed format at the time of Document verification. Otherwise, their claim for SC/ST/OBC-NCL status will not be entertained and their candidature/ applications will be considered under General (UR) category, if eligible otherwise The certificates should be as per the formats annexed. Certificates obtained in any other format will not be accepted.
- ii. The Educational Qualification Certificates viz. Provisional or Regular should contain the date of issue. In case date of issue of these certificates is after the closing date for submission of online application, then the consolidated mark sheet with date of declaration of the result of final qualifying exam or individual mark sheets of all the semesters/years with date of declaration of result on each should be submitted. In case of non-availability of date in any of these mark sheets/certificates, a certificate from the Institution/ University/Board to this effect (indicating date of declaration of result) should be produced at the time of document verification.

14.3 MODIFICATION OF APPLICATION:

- a. After final submission of ONLINE application, in case the candidates wish to make minor changes to correct inadvertent errors in the application, the correction of data other than email and mobile number can be done the modification within the last date of submission of application(**02.09.2023**).
- b. The step by step procedure for modification of the application shall be as below:
 - i. Login using Registration Number and Password
 - ii. Click on the 'Modify Application' Button.
 - iii. Proceed with the changes intended as per instructions given and submit the

application. Preserve the print out of latest application for record.

- c. **The modification to the registration and application details can be done for maximum two times only.**
- d. CAUTION: Candidates who wish to modify their application are advised to do the same sufficiently well in advance of the closing date and time of the EN. In case, due to last minute congestion, if the modifications attempt fails at any stage, and the modification carried out have not been saved or not submitted in time, the earlier information furnished in the application shall be considered and no correspondence on this subject shall be entertained.
- e. email id and mobile number cannot be changed.

15 IMPERSONATION/SUPPRESSION OF FACTS- WARNING:

- 15.1 Any candidate found using unfair means of any kind in the examination, sending someone else in his/her place to appear in the examination, attempt to impersonate will be debarred from appearing in all the examinations of all the RRBs/RRCs for lifetime. He/she if already appointed, will be dismissed from service. Such candidates are also liable for legal prosecution.
- 15.2 Furnishing of any false information to the RRC/WCR or deliberate suppression of any information at any stage will render the candidate disqualified and debarred from appearing at any selection or examination for appointment on the Railways or to any other Government service and if appointed the service of such candidate is liable to be terminated.
- 15.3 Candidate shall not bring in or attempt to bring in any political or other influence to further his/her interest in respect of the recruitment. Candidature of such candidates is liable to be rejected.

16 MISCELLANEOUS:

- 16.1 RRC/WCR reserve the right to conduct additional examination/Document verification at any stage. RRC/WCR also reserve the right to cancel part or whole of any recruitment process at any stage for any of the categories notified in this notification without assigning any reason thereof.
- 16.2 The decision of RRC/WCR in all matters relating to eligibility, acceptance or rejection of ONLINE applications, issue of free Rail Passes, penal action for false information, modification of vacancies, mode of selection, conduct of CBT, allotment of examination centers, selection, allotment of posts to selected candidates etc., will be final and binding on the candidates and no enquiry or correspondence will be entertained by the RRC/WCR in this regard.
- 16.3 RRC/WCR will not be responsible for any inadvertent errors and reserves right to correct such errors.
- 16.4 Any legal issues arising out of this notification shall fall within the legal jurisdiction of Hon'ble Central Administrative Tribunal, Jabalpur only.
- 16.5 In the event of any dispute about interpretation, the English version of the notification as published in WCR website www.wcr.indianrailways.gov.in (Path - About us->Recruitment -> Railway Recruitment Cell->GDCE Notification No. 03/2023) will be treated as final.

- 16.6 Application under RTI Act: Any Application even under RTI act seeking any information will not be entertained till the completion of the entire recruitment process.
- 16.7 For assistance in technical issue related to online registration and application submission, applicant are advised to email the matter with relevant document on email ID rjb12020@gmail.com Besides the above applicant can also contact RRC/WCR helpline during working days between 11.00 A.M. to 17.00 P.M. Contact Number- 0761-2624045.

**Chairman
Railway Recruitment Cell
West Central Railway/Jabalpur**

FORM OF CASTE CERTIFICATE FOR SC/ST

This is to certify that Shri*/ Srimati/ Kumari* son/daughter* of
 Village/Town
 District/Division* of
 the..... State/Union Territory* belongs to the Caste*/Tribe which is
 recognised as a Scheduled Caste / Scheduled Tribe under:-

*The Constitution Scheduled Castes Order 1950.

*The Constitution Scheduled Tribes Order 1950.

*The Constitution (Scheduled Castes) (Union Territories) (Part C States) Order 1951;

*The Constitution (Scheduled Tribes) (Union Territories) (Part C States) Order 1951;

[As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification Order 1956, the Bombay Re-organisation Act 1960, the Punjab Re-organisation Act 1966, the State of Himachal Pradesh Act 1970, the North Eastern Areas (Reorganisation) Act 1971 and the Scheduled Castes and Scheduled Tribes Orders, (Amendment) Act 1976]

The Constitution (Jammu and Kashmir) Scheduled Castes Orders, 1956

The Constitution (Andaman and Nicobar Islands) Scheduled Tribes Order, 1959 as amended by the Scheduled Castes and Scheduled *Tribes Orders (Amendment) Act, 1976

The Constitution (Dadra and Nagar Haveli) Scheduled Castes Order, 1962.

*The Constitution (Dadra and Nagar Haveli) Scheduled Tribes, Order, 1962

*The Constitution (Pondicherry) Scheduled Castes Orders, 1964

*The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967

*The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968

*The Constitution (Goa, Daman and Diu) Scheduled Tribes Order, 1968

*The Constitution (Nagaland) Scheduled Tribes Order, 1970.

*The Constitution (Sikkim) Scheduled Castes Order, 1978

*The Constitution (Sikkim) Scheduled Tribes Order, 1978

*The Constitution (Jammu & Kashmir) Scheduled Tribes Order, 1989.

*The Constitution (SC) Orders (Amendment) Act, 1990

*The Constitution (ST) Orders (Amendment) Ordinance Act, 1991

*The Constitution (ST) Orders (Amendment) Ordinance Act, 1996

*The Constitution (Scheduled Castes) Orders (Amendment) Act, 2002

*The Constitution (Scheduled Castes) Orders (Second Amendment) Act, 2002.

*The Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002.

2. Applicable in the case of Scheduled Castes/Scheduled Tribes persons who have migrated from one State/Union Territory Administration.

This certificate is issued on the basis of the Scheduled Castes/ Scheduled Tribes Certificate issued to Shri/Srimati* father/mother* of Shri/Srimati/Kumari of Village/ Town* in District/Division* of the State/Union Territory* who belongs to the Caste*/Tribe which is recognised as a Scheduled Caste/ Scheduled Tribe in the Station/ Union Territory* issued by the dated

3. Shri/Srimati/Kumari* and /or* his/her* family ordinarily resides in Village/Town* District/ Division* of the State/ Union Territory* of.....

Place.....

Date.....

(with seal of Office)

State/ Union Territory.....

* Please delete the words which are not applicable.

@ Please quote the specific presidential order.

% Delete the Paragraph, which is not applicable

Note: (a) The term "ordinarily reside(s)" used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950. Officers competent to issue Caste/Tribe certificates.

1. District Magistrate / Additional District Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / 1st Class Stipendiary Magistrate / Sub-Divisional Magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner. 2. Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate. 3. Revenue Officers not below the rank of Tehsildar. 4. Sub-Divisional Officer of the area where the candidate and / or his / her family normally reside(s). 5. Certificates issued by Gazetted Officers of the Central or of a State Government Countersigned by the District Magistrate concerned. 6. Administrator/Secretary to Administrator (Laccadive, Minicoy and Admindivi Islands).

OBC CERTIFICATE FORMAT**FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES
APPLYING FOR APPOINTMENT TO POST UNDER THE GOVERNMENT OF INDIA**

This is to certify that Shri/Smt./Kumari.....son/daughter of
..... of Village/Townin District/ Division
.....in the State/ Union Territory..... belongs to the
..... community which is recognised as a Backward Class under the
Government of India, Ministry of Social Justice and Empowerment's Resolution No.
..... Dated.....*.

Shri/Smt./Kum.* and/or his/her family ordinarily
reside(s) in the.....District/Division of the
..... State/Union Territory. This is also to certify that he/she does
not belong to the persons/sections (Creamy layer) mentioned in column 3 (of the Schedule to the
Government of India, Department of Personnel & Training OM No. 36012/22/93- Estt(SCT), dated
8.9.1993 and modified vide Government of India, Department of Personnel and Training
O.M.No.36033/1/2013-Estt. (Res) dated 27.05.2013 and 13.09.2017**

Date:

**DISTRICT MAGISTRATE /
DY. COMMISSIONER ETC.**
(Seal)

* The authority issuing the certificate may have to mention the details of Resolution of Government of India, in which the caste of the candidate as OBC.

** As amended from time to time.

Note: The term "Ordinarily" used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

DECLARATION

Proforma for declaration to be submitted by Other Backward Class Candidates at the time of document verification, who had applied for the posts against

GDCE Notification No. 03/2023

"I, son/daughter of Shri
..... resident of Village/Town/City
..... district State
..... hereby declare that I belong to the
(indicate your sub caste) community which is recognized as a backward class by the Government of India for the purpose of reservation in services as per orders contained in Department of Personnel and Training Office Memorandum No. 36012/22/93-Estt.(SCT) dated 08.09.1993. It is also declared that I do not belong to persons/sections (Creamy Layer) mentioned in column 3 of the Schedule to the above referred Office Memorandum dated 08.03.1993 and its subsequent revision through O.M.No.36033/1/2013-Estt. (Res) dated 27.05.2013 and 13.09.2017.

Place:

Signature of the Candidate

Date:

Name of the candidate

Syllabus for Civil & Allied Engineering Exam Group – JE

Sl. No.	Subject
1	Engineering Mechanics- Force (resolution of force, moment of force, force system, composition of forces), Equilibrium, Friction, Centroid and Center of gravity, Simple machines.
2	Building Construction- Building components (substructure, superstructure), type of structure (load bearing, framed and composite structures).
3	Building materials- Masonry materials (stones, bricks, and mortars), Timber and miscellaneous materials (glass, plastic, fiber, aluminum steel, galvanized iron, bitumen, PVC, CPVC, and PPF).
4	Construction of substructure- job layout, earthwork, foundation (types, dewatering, coffer dams, bearing capacity).
5	Construction of superstructure- stone masonry, brick masonry, Hollow concrete block masonry, composite masonry, cavity wall, doors and windows, vertical communication (stairs, lifts, escalators), scaffolding and shoring.
6	Building finishes- Floors (finishes, process of laying), walls (plastering, pointing, painting) and roofs (roofing materials including RCC).
7	Building maintenance- Cracks (causes, type, repairs- grouting, guniting, epoxy etc.), settlement (causes and remedial measures), and re-baring techniques.
8	Building drawing- Conventions (type of lines, symbols), planning of building (principles of planning for residential and public buildings, rules and byelaws), drawings (plan, elevation, section, site plan, location plan, foundation plan, working drawing), perspective drawing.
9	Concrete Technology- Properties of various types/grades of cement, properties of coarse and fine aggregates, properties of concrete (water cement ratio, properties of fresh and hardened concrete), Concrete mix design, testing of concrete, quality control of concrete (batching, formwork, transportation, placing, compaction, curing, waterproofing), extreme weather concreting and chemical admixtures, properties of special concrete (ready mix, RCC, pre-stressed, fiber reinforced, precast, high performance).
10	Surveying- Types of survey, chain and cross staff survey (principle, ranging, triangulation, chaining, errors, finding area), compass survey (principle, bearing of line, prismatic compass, traversing, local attraction, calculation of bearings, angles and local attraction) leveling (dumpy level, recording in level book, temporary adjustment, methods of reduction of levels, classification of leveling, tilting level, auto level, sources of errors, precautions and difficulties in leveling), contouring (contour interval, characteristics, method of locating, interpolation, establishing grade contours, uses of contour maps), area and volume measurements, plane table survey (principles, setting, method), theodolite survey (components, adjustments, measurements, traversing), Tacheometric survey, curves (types, setting out), advanced survey equipment, aerial survey and remote sensing.
11	Computer Aided Design- CAD Software (AutoCAD, Auto Civil, 3D Max etc.), CAD commands, generation of plan, elevation, section, site plan, area statement, 3D view.
12	Geo Technical Engineering- Application of Geo Technical Engineering in design of foundation, pavement, earth retaining structures, earthen dams etc., physical properties of soil, permeability of soil and seepage analysis, shear strength of soil, bearing capacity of soil, compaction and stabilization of soil, site investigation and sub soil exploration.
13	Hydraulics- properties of fluid, hydrostatic pressure, measurement of liquid pressure in pipes, fundamentals of fluid flow, flow of liquid through pipes, flow through open channel, flow measuring devices, hydraulic machines.
14	Irrigation Engineering- Hydrology, investigation and reservoir planning, percolation tanks, diversion head works.
15	Mechanics of Structures- Stress and strain, shear force and bending moment, moment of inertia, stresses in beams, analysis of trusses, strain energy.
16	Theory of structures- Direct and bending stresses, slope and deflection, fixed beam, continuous beam, moment distribution method, columns.
17	Design of Concrete Structures- Working Stress method, Limit State method, analysis and design of singly reinforced and doubly reinforced sections, shear, bond and development length, analysis and design of T Beam, slab, axially loaded column and footings.
18	Design of Steel Structures- Types of sections, grades of steel, strength characteristics, IS Code, Connections, Design of tension and compression members, steel roof truss, beams, column bases.
19	Transportation Engineering- Railway Engineering (alignment and gauges, permanent way, railway track geometrics, branching of tracks, stations and yards, track maintenance), Bridge engineering (site selection, investigation, component parts of bridge, permanent and temporary bridges, inspection and maintenance), Tunnel engineering (classification, shape and sizes, tunnel investigation and surveying, method of tunneling in various strata, precautions, equipment, explosives, lining and ventilation).
20	Highway Engineering- Road Engineering, investigation for road project, geometric design of highways, construction of road pavements and materials, traffic engineering, hill roads, drainage of roads, maintenance and repair of roads.
21	Environmental Engineering- Environmental pollution and control, public water supply, domestic sewage, solid waste management, environmental sanitation, and plumbing.

22	Advanced Construction Techniques and Equipment- Fibers and plastics, artificial timber, advanced concreting methods (under water concreting, ready mix concrete, tremix concreting, special concretes), formwork, pre-fabricated construction, soil reinforcing techniques, hoisting and conveying equipment, earth moving machinery (exaction and compaction equipment), concrete mixers, stone crushers, pile driving equipment, working of hot mix bitumen plant, bitumen paver, floor polishing machines.
23	Estimating and Costing- Types of estimates (approximate, detailed), mode of measurements and rate analysis.
24	Contracts and Accounts- Types of engineering contracts, Tender and tender documents, payment, specifications.

Annexure-IIIB

Syllabus for Electrical & Allied Engineering Exam Group – JE

Sl.No.	Subject
1.	Basic concepts: Concepts of resistance, inductance, capacitance, and various factors affecting them. Concepts of current, voltage, power, energy and their units.
2.	Circuit law: Kirchoff's law, Simple Circuit solution using network theorems.
3.	Magnetic Circuit: Concepts of flux, mmf, reluctance, Different kinds of magnetic materials, Magnetic calculations for conductors of different configuration e.g. straight, circular, solenoidal, etc. Electromagnetic induction, self and mutual induction.
4.	AC Fundamentals: Instantaneous, peak, R.M.S. and average values of alternating waves, Representation of sinusoidal wave form, simple series and parallel AC Circuits consisting of R.L. and C, Resonance, Tank Circuit. Poly Phase system - star and delta connection, 3 phase power, DC and sinusoidal response of R-Land R-C circuit.
5.	Measurement and measuring instruments: Measurement of power (1 phase and 3 phase, both active and re-active) and energy, 2 wattmeter method of 3 phase power measurement. Measurement of frequency and phase angle. Ammeter and voltmeter (both moving oil and moving iron type), extension of range wattmeter, Multimeters, Megger, Energy meter AC Bridges. Use of CRO, Signal Generator, CT, PT and their uses. Earth Fault detection.
6.	Electrical Machines: (a) D.C. Machine - Construction, Basic Principles of D.C. motors and generators, their characteristics, speed control and starting of D.C. Motors. Method of braking motor, Losses and efficiency of D.C. Machines. (b) 1 phase and 3 phase transformers - Construction, Principles of operation, equivalent circuit, voltage regulation, O.C. and S.C. Tests, Losses and efficiency. Effect of voltage, frequency and wave form on losses. Parallel operation of 1 phase /3 phase transformers. Auto transformers. (c) 3 phase induction motors, rotating magnetic field, principle of operation, equivalent circuit, torque-speed characteristics, starting and speed control of 3 phase induction motors. Methods of braking, effect of voltage and frequency variation on torque speed characteristics, Fractional Kilowatt Motors and Single Phase Induction Motors: Characteristics and applications.
7.	Synchronous Machines: Generation of 3-phase e.m.f. armature reaction, voltage regulation, parallel operation of two alternators, synchronizing, control of active and reactive power. Starting and applications of synchronous motors.
8.	Generation, Transmission and Distribution: Different types of power stations, Load factor, diversity factor, demand factor, cost of generation, inter-connection of power stations. Power factor improvement, various types of tariffs, types of faults, short circuit current for symmetrical faults. Switchgears and Protection: Rating of circuit breakers, Principles of arc extinction by oil and air, H.R.C. Fuses, Protection against earth leakage / over current, etc. Buchholz relay, Merz-Price system of protection of generators & transformers, protection of feeders and bus bars. Lightning arresters, various transmission and distribution system, comparison of conductor materials, efficiency of different system. Cable - Different type of cables, cable rating and derating factor.
9.	Estimation and costing: Estimation of lighting scheme, electric installation of machines and relevant IE rules. Earthing practices and IE Rules.
10.	Utilization of Electrical Energy: Illumination, Electric heating, Electric welding, Electroplating, Electric drives and motors.
11.	Basic Electronics: Working of various electronic devices e.g. P N Junction diodes, Transistors (NPN and PNP type), BJT and JFET. Simple circuits using these devices.

Annexure-IIIC

Syllabus for Electronics & Allied Engineering Exam Group – JE

Sl.No.	Subject
1.	Electronic Components & Materials Conductors, Semi conductor & Insulators; Magnetic materials; Jointing & Cleaning materials for U/G copper cable & OFC; Cells and Batteries (chargeable and non chargeable); Relays, Switches, MCB & Connectors.
2.	Electronic Devices and circuits PN Junction diodes, thyristor; Diode and triode circuits; Junction Transistors; Amplifiers; Oscillator; M u l t i v i b r a t o r , counters; Rectifiers; Inverter and UPS.
3.	Digital Electronics Number System & Binary codes; Boolean Algebra & Logic gates; Combinational & Sequential logic circuits; A/D & D/A converter, counters; Memories
4.	Linear Integrated Circuit Introduction to operational Amplifier; Linear applications; Non Linear applications; Voltage regulators; Timers; Phase lock loop.

5.	Microprocessor and Microcontroller
	Introduction to microprocessor, 8085 microprocessor working; Assembly Language programming; Peripherals & other microprocessors; Microcontrollers
6.	Electronic Measurements
	Measuring systems; Basic principles of measurement; Range Extension methods; Cathode ray oscilloscope, LCD, LED panel; Transducers
7.	Communication Engineering
	Introduction to communication; Modulation techniques; Multiplexing Techniques; Wave Propagation, Transmission line characteristics, OFC; Fundamentals of Public Address systems, Electronic exchange, Radar, Cellular and Satellite Communication.
8.	Data communication and Network
	Introduction to data communication; Hardware and interface; Introduction to Networks and Networking devices; Local Area Network and Wide area network; Internet working.
9.	Computer Programming
	Programming concepts; Fundamentals of 'C' and C ++; Operators in 'C' and C ++; Control Statements; Functions, Array String & Pointers, File Structure; Data Structure and DBMS
10	Basic Electrical Engg.
	DC Circuits; AC fundamentals; Magnetic, Thermal and Chemical effects of Electric current; Earthing - Installation, Maintenance, Testing,

Annexure-IIID

Syllabus for Mechanical & Allied Engineering Exam Group – JE

1.	Engineering Mechanics :
	Resolution of forces, Equilibrium and Equibrant, parallelogram law of forces, triangle law of forces, polygon law of forces and Lami's theorem, couple and moment of a couple, condition for equilibrium of rigid body subjected to number of coplanar non-concurrent forces, definition of static friction, dynamic friction, derivation of limiting angle of friction and angle of repose, resolution of forces considering friction when a body moves on horizontal plane and inclined plane, calculation of moment of inertia and radius of gyration of : (a) I-Section (b) channel section (c) T-Section (d) L-Section (Equal & unequal lengths) (e) Z-Section (f) Built up sections (simple cases only), Newton's laws of motion (without derivation), motion of projectile, D'Alembert's principle, definition law of conservation of energy, law of conservation of momentum.
2.	Material Science :
	Mechanical properties of engineering materials - tensile strength, compressive strength, ductility, malleability, hardness, toughness, brittleness, impact strength, fatigue, creep resistance. Classification of steels, mild steel and alloy steels. Importance of heat treatment. Heat treatment processes - annealing, normalizing, hardening, tempering, carburizing, nitriding and cyaniding.
3.	Strength of Materials :
	Stress, strain, stress strain diagram, factor of safety, thermal stresses, strain energy, proof resilience and modulus of resilience. Shear force and bending moment diagram - cant lever beam, simply supported beam, continuous beam, fixed beam. Torsion in shafts and springs, thin cylinder shells.
4.	Machining :
	Working principle of lathe. Types of lathes - Engine lathe - construction details and specifications. Nomenclature of single point cutting tool, geometry, tool signature, functions of tool angles. General and special operations - (Turning, facing, taper turning thread cutting, knurling, forming, drilling, boring, reaming, key way cutting), cutting fluids, coolants and lubricants. Introduction to shaper, slotter, plainer, broaching, milling and manufacture of gears, heat treatment process applied to gears.
5.	Welding :
	Welding - Introduction, classification of welding processes, advantages and limitations of welding, principles of arc welding, arc welding equipment, choice of electrodes for different metals, principle of gas (oxy-acetylene) welding, equipment of gas welding, welding procedures (arc & gas), soldering and brazing techniques, types and applications of solders and fluxes, various flame cutting processes, advantages and limitations of flame cutting, defects in welding, testing and inspection modern welding methods, (submerged, CO ₂ , atomic - hydrogen, ultrasonic welding), brief description of MIG & TIG welding.
6.	Grinding & Finishing Process :

	Principles of metal removal by grinding, abrasives, natural and artificial, bonds and binding processes, vitrified, silicate, shellac rubber, grinding machines, classification: cylindrical, surface, tool & cutter grinding machine, construction details, relative merits, principles of centreless grinding, advantages & limitations of centreless grinding work, holding devices, wheel maintenance, balancing of wheels, coolants used, finishing by grinding, honing, lapping, super finishing, electroplating, basic principles - plating metals, applications, hot dipping, galvanizing tin coating, parkerising, anodizing, metal spraying, wire process, powder process and applications, organic coatings, oil base paint, lacquer base enamels, bituminous paints, rubber base coating.
7.	Metrology :
	Linear measurement - Slip gauges and dial indicators, angle measurements, bevel protractor, sine bar, angle slip gauges, comparators (a) mechanical (b) electrical (c) optical (d) pneumatic. Measurement of surface roughness; methods of measurements by comparison, tracer instruments and by interferometry, collimators, measuring microscope, interferometer, inspection of machine parts using the concepts of shadow projection and profile projection.
8.	Fluid Mechanics & Hydraulic Machinery :
	Properties of fluid, density, specific weight, specific gravity, viscosity, surface tension, compressibility capillarity, Pascal's law, measurement of pressures, concept of buoyancy. Concept of Reynold's number, pressure, potential and kinetic energy of liquids, total energy, laws of conservation, mass, energy and momentum, velocity of liquids and discharge, Bernoulli's equation and assumptions, venturimeters, pitot-tube, current meters. Working principle & constructional details of centrifugal pump, efficiencies - manometric efficiency, volumetric efficiency, mechanical efficiency and overall efficiency, cavitation and its effect, working principle of jet & submersible pumps with line diagrams.
9.	Industrial Management :
	Job analysis, motivation, different theories, satisfaction, performance reward systems, production, planning and control, relation with other departments, routing, scheduling, dispatching, PERT and CPM, simple problems. Materials in industry, inventory control model, ABC Analysis, Safety stock, re-order, level, economic ordering quantity, break even analysis, stores layout, stores equipment, stores records, purchasing procedures, purchase records, Bin card, Cardex, Material handling, Manual lifting, hoist, cranes, conveyors, trucks, fork trucks.
10.	Thermal Engineering :
	Laws of thermo dynamics, conversion of heat into work vice versa , laws of perfect gases, thermo dynamic processes - isochoric, isobaric, isothermal hyperbolic, isentropic, polytrophic and throttling, modes of heat transfer, thermal conductivity, convective heat transfer coefficient, Stefan Boltzman law by radiation and overall heat transfer coefficient. Air standards cycles - Carnot cycle, Otto cycle, Diesel cycle, construction and working of internal combustion engines, comparison of diesel engine and petrol engine. Systems of internal combustion engine, performance of internal combustion engines. Air compressors their cycles refrigeration cycles, principle of a refrigeration plant.

Annexure-A

GDCE- 03/2023 : POST PARAMETERS

Category No.	Name of the post	Level in 7 th CPC	Pay (₹)	Med. Std.	Suitability for Persons with Benchmark Disability (PwBD)			Minimum Educational Qualification
					VI	HI	LD	
1	ASSISTANT LOCO PILOT	2	19900	A1	NO	NO	NO	<p>Matriculation Pass Plus (a) Course Completed Act Apprenticeship / ITI approved by NCVT / SCVT in the specified trades, OR (b) Diploma in Mechanical/Electrical/Electronics/ Automobile Engineering in lieu of ITI.</p> <p>Specified trades for the purpose of (a) above are as follows: A) Fitter B) Electrician C) Instrument Mechanic D) Mill Wright / Maintenance Mechanic E) Mechanic (Radio and TV) F) Electronics Mechanic G) Mechanic (Motor Vehicle) H) Wireman I) Tractor Mechanic J) Armature & Coil Winder K) Mechanic(Diesel) L) Heat Engine M Turner N) Machinist O) Refrigeration and Air-conditioning Mechanic</p> <p>Note: An Engineering Degree in the same branch will be accepted in lieu of Diploma in Engineering</p>
2	Technician Gr- III (DSL/Electrical)	2	19900	B1	NO	D,HH	OL, LC, DW, AAV	<p>Matriculation / SSLC plus ITI from recognised institutions of NCVT/SCVT in the trades of Electrician / Mechanic Auto electrical and Electronics / Wireman / Electronics Mechanic / Mechanic Power Electronics</p> <p>(OR)</p> <p>Matriculation / SSLC plus Course Completed Act Apprenticeship in the trades mentioned above.</p>

3	Technician Gr-III (Signal)	2	19900	B1	NO	NO	OL	A) Matriculation / SSLC plus ITI from recognised institutions of NCVT/SCVT in the trades of Electrician / Electronics Mechanic / Wireman (OR) Matriculation / SSLC plus Course Completed Act Apprenticeship in the trades mentioned above (OR) B) 10+2 with Physics and Maths
4	Technician Gr-III (Track Machine)	2	19900	A3	NO	D,HH	OL,LC,DW, AAV	Matriculation / SSLC plus ITI from recognised institutions of NCVT/SCVT in the trades of Fitter / Electrician / Electronics Mechanic / Instrument Mechanic / Mechanic Mechatronis / Mechanic Diesel / Mechanic Motor Vehicle / Welder / Machinist (OR) Matriculation / SSLC plus Course Completed Act Apprenticeship in the trades mentioned above.
5	Technician Gr-III (Tele)	2	19900	B1	NO	NO	OL	A) Matriculation / SSLC plus ITI from recognised institutions of NCVT/SCVT in the trades of Electrician / Electronics Mechanic / Wireman (OR) Matriculation / SSLC plus Course Completed Act Apprenticeship in the trades mentioned above (OR) B) 10+2 with Physics and Maths
6	Technician Gr- III (TRS)	2	19900	B-1	NO	HH	OL	Matriculation / SSLC plus ITI from recognised institutions of NCVT/SCVT in the trades of Electrician / Wireman / Electronics Mechanic / Mechanic Power Electronics / Mechanic HT, LT Equipments and Cable Jointing / Fitter / Welder / Painter General / Machinist / Carpenter (OR) Matriculation / SSLC plus Course Completed Act Apprenticeship in the trades mentioned above.

7	Junior Engineer (P. Way)	6	35400	A3	NO	NO	OL,DW,AAV	(a) Three years Diploma in Civil 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
8	Junior Engineer (C & W)	6	35400	B1	NO	NO	OL,DW,AAV	Three years Diploma in (a) Mechanical / Electrical / Electronics / Manufacturing / Mechatronics / Industrial / Machining / Instrumentation & Control / Tools & Machining / Tools & Die Making / Automobile / Production Engineering OR (b) a combination of any sub stream of basic streams of Mechanical / Electrical / Electronics / Manufacturing / Mechatronics / Industrial / Machining / Instrumentation & Control / Tools & Machining / Tools & Die Making / Automobile / Production Engineering from a recognised University/ Institute.
9	Junior Engineer (TRD)	6	35400	A3	NO	NO	NO	Three years Diploma in (a) Mechanical / Electrical / Electronics Engineering OR (b) a combination of any sub stream of basic streams of Mechanical / Electrical / Electronics Engineering from a recognised University/ Institute.
10	Junior Engineer (TRS)	6	35400	A3	NO	D, HH	OL, DW, AAV	Three years Diploma in (a) Mechanical / Electrical / Electronics Engineering OR (b) a combination of any sub stream of basic streams of Mechanical / Electrical / Electronics Engineering from a recognised University/ Institute.
11	Train Manager	5	29200	A2	No	No	No	Degree from recognized University or its equivalent.

Abbreviations: AAV=Acid Attack Victim, B=Blind, BL=Both Legs, D=Deaf, DW=Dwarfism, HH=Hard of Hearing, HI=Hearing Impairment, ID= Intellectual Disability, LC=Leprosy Cured, LD=Locomotor Disability, LV=Low Vision, MD=Muscular Dystrophy, MW= Muscular Weakness, OA=One Arm, OD=Other Disability, OL=One Leg, OAL=One Arm & One Leg, PwBD=Persons With Benchmark Disabilities, RPwD = Rights of Persons with Disabilities, SLD=Speech and Language Disability, VI=Visually Impairment.