



दामोदर घाटी निगम/Damodar Valley Corporation  
मानव संसाधन विभाग/Human Resource Department  
डीवीसी टावर्स, वी.आई.पी रोड, कोलकाता-700054  
DVC Towers, VIP Road, Kolkata – 700054



(Ref: Advt. No. PLR/JE & MS/2024/5/1

Dtd. 05/06/2024)



**NOTICE FOR RECRUITMENT OF DIPLOMA ENGINEER AS  
JUNIOR ENGINEERS GR.II (JE GR.II) and MINE SURVEYOR IN DVC THROUGH  
COMPUTER BASED TEST**

**Damodar Valley Corporation (DVC)**, a statutory organization, under the Ministry of Power, Government of India, and one of the premier power utilities in India engaged in Thermal/Hydel Power Generation, Transmission & Distribution, Water Management and foraying into Renewables and Mining area with own Mines at Tubed, with its Head Quarter located at Kolkata and field formations spread across West Bengal & Jharkhand invites **ONLINE applications** from bright, result-oriented and promising **DIPLOMA ENGINEERS** to join its journey of growth as **JUNIOR ENGINEER GR.II (JE GR.II)** in the disciplines of **Mechanical / Electrical / Civil /C&I/Comm and Mine Surveyor** through computer based test.

DVC having a total Generation capacity (Thermal + Hydel) of 6687.2MW & Solar 13.923MWp, has a massive expansion plan of Renewables (5500MW) and Super Critical and Ultra Critical Thermal Generation of (3720MW). DVC also supplies water to industries, Municipal Corporations etc. For details on Plants/Stations of DVC, please visit the DVC website [www.dvc.gov.in](http://www.dvc.gov.in)

Interested and eligible candidates may apply **ONLINE** only through the DVC website [www.dvc.gov.in](http://www.dvc.gov.in) (**Career → Recruitment → Recruitment Notices**). **No other means/mode of application shall be accepted.** Please read this Advertisement/Notification carefully and ensure eligibility criteria before submitting the **ONLINE** application.

## 1. CATEGORY-WISE VACANCY DETAILS

Table-A

Sl. No.	Name of Post & Post No.	Vacancies with Reservation #						Age Limit
		Total	UR	OBC (NCL)	SC	ST	EWS	As on closing date of online application** (For UR)
1.	JE Gr.II (Mech), 2024/JE1	16	09	04	02	--	01	Minimum - 18 years and upper age limit - 28 Years
2.	JE Gr.II(Elec), 2024/JE2	20	09	05	03	01	02	
3.	JE Gr.II (C&I), 2024/JE3	02	01	--	--	01	--	
4.	JE Gr.II (Civil), 2024/JE4	20	09	05	03	01	02	
5.	JE Gr.II (Comm) 2024/JE5	02	--	01	01	--	--	
6	Mine Surveyor 2024/MS6	04	03	01	--	--	--	Minimum -18 years and upper age limit -30 Years

NB: The projected vacancies indicated above may increase/decrease depending upon the future requirements and at the discretion of the DVC Management.

\*\*Age relaxation for SC/ST/OBC (NCL)/PwBD/ candidates will be as per GOI guidelines.

### PwBD Reservation and Identification (#)

**04(Four) Nos. of vacancies reserved for PwBDs.** (01 carry forward vacancy and 03 current vacancy)

**Benchmark Disability details are as follows:**

- Low Vision(LV)=02 (1+1backlog)
- Deaf (D) and Hard of Hearing (HH)= 01
- Locomotor Disability (OA, OL) including Leprosy Cured (LC), Dwarfism (Dw) and Acid Attack Victims(AAV)= 01

# Horizontal Reservation

## 2. SCALE OF PAY AS PER 7TH PAY REVISION

₹35,400/- to 1,12,400/- in Pay Matrix Level 6 (at B4 level in DVC)

### 3. ELIGIBILITY CRITERIA

#### a. Details of Minimum Essential Qualification (QR)

Sl. No.	Post Name & Post No	Essential Qualification Requirement (QR)
1.	<b>JE Gr.II (Mech), 2024/JE1</b>	3 (three) years full time Diploma in Engineering/ Technology in Mechanical Engineering from any recognized College/ Institute approved by AICTE/appropriate statutory authority with not less than 65% marks (General/ OBC(NCL)/EWS) / 60% marks (SC/ST/PwBD) taking average of all the semesters, irrespective of the weightage given to any particular semester / year by the Institute / University .
2.	<b>JE Gr.II (Elec), 2024/JE2</b>	3 (three) years full time Diploma in Engineering/ Technology in Electrical/ Electrical & Electronics Engineering from any recognized College/ Institute approved by AICTE/appropriate statutory authority with not less than 65% marks (General/ OBC(NCL)/EWS) / 60% marks (SC/ST/PwBD) taking average of all the semesters, irrespective of the weightage given to any particular semester / year by the Institute / University
3	<b>JE Gr.II (C&amp;I), 2024/JE3</b>	3 (three) years full time Diploma in Engineering/ Technology in Electronics & Telecommunications/ Instrumentation Engineering from any recognized College/ Institute approved by AICTE/appropriate statutory authority with not than 65% marks (General/ OBC(NCL)/EWS) / 60% marks (SC/ST/PwBD) taking average of all the semesters, irrespective of the weightage given to any particular semester / year by the Institute / University.
4.	<b>JE Gr.II (CiviI), 2024/JE4</b>	3 (three) years full time Diploma in Engineering/ Technology in Civil Engineering from any recognized College/ Institute approved by AICTE/appropriate statutory authority with not than 65% marks (General/ OBC(NCL)/EWS) / 60% marks (SC/ST/PwBD) taking average of all the semesters, irrespective of the weightage given to any particular semester / year by the Institute / University.
5.	<b>JE Gr.II (Comm), 2024/JE5</b>	3 (three) years full time Diploma in Engineering/ Technology in Electronics & Telecommunications/ Telecommunication Engineering/ Electronics & Communication Engineering from any recognised College/ Institute approved by AICTE/appropriate statutory authority with not than 65% marks (General/ OBC(NCL)/EWS) / 60% marks (SC/ST/PwBD) taking average of all the semesters, irrespective of the weightage given to any particular semester / year by the Institute / University .
6.	<b>Mine Surveyor, 2024/MS6</b>	Matriculation with not less than 65% marks (General/ OBC(NCL)/EWS) / 60% marks (SC/ST/PwBD) and Surveyor's certificate of competency issued by DGMS . <b>OR</b> Diploma in Mining/Mining Surveying/Mining & Mine Surveying with not less than 65% marks (General/ OBC(NCL)/EWS) / 60% marks (SC/ST/PwBD) from any recognised College/ Institute approved by AICTE/appropriate statutory authority and Surveyors' certificate of competency issued by DGMS.

- The candidates who have taken lateral entry to 2nd year of three-year course of diploma in engineering can also apply.
- Equivalent Diploma certificate holder is not eligible.
- Higher technical qualification like B.Tech. / BE / M.Tech. / ME etc. with or without Diploma is not allowed. Qualification acquired through distance mode will not be considered.
- Those possessing Degree and higher qualifications are *not eligible* and although they appear in CBT their candidature is liable for cancellation even after appointment. As such candidates are advised to not appear for CBT not meeting the qualifications as per the advertisement.

**b. Upper Age Limit:-**

**Junior Engineers GR-II--** Minimum age of the applicant should not be less than 18 years & maximum not more than 28 years of age for Junior Engineers as **on closing date of online application**

**Mine Surveyor--** Minimum age of the applicant should not be less than 18 years & Maximum not more than 30 years of age for Mine Surveyors as **on closing date of online application**.

Age relaxation for **SC/ST/OBC (NCL)/PwBD/Ex-SM** candidates will be as per GOI guidelines. **No upper age limit for DVC Departmental candidates.**

c. Selected candidates after Computer based test will have to mandatorily produce Final Marksheet/ Provisional/ Final pass certificate for Diploma course at the time of Document verification (DV).

#### 4. RELAXATIONS AND CONCESSIONS:

(i) Reservation/Relaxation/Concession to candidates belonging to **OBC(Non-Creamy Layer)/SC/ST/ EWS(Economically Weaker Sections)/ PwBD (Persons with Benchmark Disability /Ex-Servicemen/ J&K Domicile/Victims of riots** shall be as per Govt. of India directives.

(ii) For getting the benefit of reservation under PwBD category: The candidate should meet following criteria to claim relaxation/reservation under PwBD category

- Nature of Disability – Permanent
- Degree of Disability – Minimum 40%
- PwBD certificate as per latest format applicable to relevant category of disability

**(iii) Relaxation in Upper Age Limit:**

- For OBC(NCL) candidates : 3 years
- For SC/ST candidates : 5 years
- For PwBD candidates: 10 years over and above category relaxation (i.e.10 years for a PwBD candidate belonging to General category, 13 years for a PwBD candidate belonging to OBC(NCL) category, 15 years for a PwBD candidate belonging to SC/ST category, etc.)
- J & K Domicile/ Ex-Servicemen/ Victims of Riots : As per Govt. of India directives



(iv) **Reservation/ Relaxation/ Concession for SC/ST** will be subject to submission of relevant Caste Certificate in the prescribed format of Govt. of India issued by a Competent Authority at the time of documents verification, if called for.

Name of caste/tribe to which candidate belongs must appear in the Central List of SC/ST of respective state as notified respectively by Ministry of Social Justice and Empowerment, Govt of India and Ministry of Tribal Affairs, Govt of India.

The certificate must contain the date of issue along with name of caste/tribe, spelled exactly in the same manner as appearing in the central list of the respective state.

(v) **Reservation/ Relaxation for OBC(NCL)** will be subject to submission of a copy of the latest OBC(NCL) certificate along with NCL in the format prescribed by the Govt. of India for “Appointment to posts under Govt. of India” from a Competent Authority at the time of documents verification, if called for.

Name of caste to which candidate belongs must appear in the Central List of Other Backward Classes of respective state as notified by Ministry of Social Justice and Empowerment, Govt. of India for appointment to posts under GOI and Central Govt. Public Sector Undertakings.

The certificate must contain the date of issue along with name of caste, spelled exactly in the same manner as appearing in the central list of the respective state.

The OBC candidates who belong to “**Creamy Layer**” are not entitled to concession admissible to the OBC category and such candidates have to indicate their category as General.

(vi) **Relaxation/ Concession for J&K Domicile / Ex-Servicemen/ Victims of riots** will be subject to submission of relevant Age relaxation cum Domicile Certificate / Discharge Certificate etc. in the prescribed format issued by a Competent Authority at the time of documents verification, if called for.

(vii) **Reservation and Relaxation for EWS** will be subject to submission of a copy of the latest Income and Asset certificate issued by a competent authority at the time of documents verification, if called for.

(viii) The **OBC (NCL) /EWS** candidates are required to submit the requisite certificate in the prescribed format of the Government of India, from a competent authority issued in the current year only i.e. **not older than one year from the date of documents verification.**

*(Please refer to **Annexure-1 to 4** on the DVC website [www.dvc.gov.in](http://www.dvc.gov.in) under **Career → Recruitment → Recruitment Notices** for prescribed Govt. of India format of Caste, Income & Asset Certificate & Disability Certificate). Also, OBC (NCL) candidates shall have to give a self-undertaking indicating that they belong to the OBC (Non-Creamy Layer) category in the prescribed format of Govt. of India, at the time of Documents verification.*

(ix) **Reservation/ Relaxation/ Concession for Persons with Disabilities** is subject to submission of Disability Certificate issued by a Government Medical Board in the format prescribed by Govt. of India, at the time of documents verification.

(x) Candidates belonging to **SC/ST/PwBD/Ex-SM categories and Departmental candidates** are exempted from payment of application fees.

(xi) In case Caste/Category certificate is issued in a language other than Hindi or English, candidates are advised to produce a certified translation of the same in either Hindi or English language at the time of Document Verification, if called for.

(xii) There is no upper age limit for **Departmental candidates**.

## 5. SELECTION PROCESS

Eligible candidates will have to undergo a Computer Based Test. Based on the Merit and vacancy requirement, the list of successful candidates for documents verification will be made available at [www.dvc.gov.in](http://www.dvc.gov.in).

Written Test shall be of Objective Type (each question shall have four answer options) of two hours' duration consisting of two parts –

1. Part-I consists of General Aptitude Test (GAT) on vocabulary, verbal comprehension, quantitative aptitude, reasoning ability, data sufficiency and interpretation, numerical ability etc.
2. Part-II consists of Technical Knowledge Test (TKT) having specific questions from respective discipline.

Please refer **Annexure -I** for Brief syllabus, number of questions, CBT question format, negative markings, etc.

Qualifying Criteria in Written Test (As per posts reserved for the respective category):

Vacancy Reservation	Qualifying Criteria
Gen/OBC(NCL)/ EWS	50% of Total marks in Each part (Part-I & Part-II)
SC/ST/PwBD	40% of Total marks in Each part (Part-I & Part-II)

However, appointment of selected candidate is subject to his/ her being found medically fit, after documents verification, as per the Corporation Norms. Such appointments shall also be subject to the service and conduct rules of the Corporation.

(i) **Verification of Credentials:** - While appearing for Documents Verification at the time of joining, the candidates are required to produce his/her proof of Identity in **Original** such as Aadhaar Card, Voter Card, Pan Card, Driving License, Passport etc. If the identity of the candidate is doubtful, the candidate may not be considered for further selection process.

(ii) The shortlisted candidates will be called for Documents Verification through email only and the details such as **Date, Time and Venue of the same** shall be hosted on the DVC website only. **Please note that NO hard copy of the Call Letters to the shortlisted candidates for Documents Verification will be sent by Post or issued separately.** Hence, candidates are advised to keep track of their application status by visiting the DVC website regularly during the recruitment process. Please note that no other mode of communication, apart from emails, pertaining to the selection process other than that mentioned above will be followed.

(iii) Final selection will be after successful completion of Medical test and documents verification.

## 6. PAYMENT OF APPLICATION FEE:

(i) Candidates belonging to **General/OBC(NCL)/EWS** categories are required to pay a **Non-refundable Application Fee of Rs 300/- (Rupees Three Hundred Only)**.

(ii) Candidates belonging to **SC/ST/PWBD/Ex-SM categories & DVC Departmental Candidates** are **exempted from payment of application fees**.

(iii) Incomplete applications/ applications without application fees shall summarily be rejected.

(iv) The last date for payment of the application fee is **04/07/2024**.

(v) **Candidates must ensure that payment of Rs 300/- is made at one go and amount less than Rs. 300/- will not be accepted as application fee.**

(vi) **Application Fee once paid will not be refunded under any circumstances.** Candidates are, therefore, requested to verify their eligibility before paying the application fee. The bank charges as applicable have to be borne by the candidates.

## 7. COMPENSATION PACKAGE:

The Selected candidates will be placed in the **Pay Scale of Rs 35,400-1,12,400/- in Pay Matrix Level 6 (as per 7<sup>th</sup> Pay Revision)** during the one-year probation period. On successful completion of the probation period, the candidates will be absorbed on the same aforementioned scale and pay matrix. The compensation package includes Basic Pay, Central Dearness Allowance (CDA), Medical Reimbursement, Leave Travel Allowance, NPS, Conveyance Allowance, Leave Encashment and HRA etc. admissible as per Corporation Rules in force from time to time.

## 8. SERVICE AGREEMENT BOND:

The selected candidates will be required to execute a service agreement bond to successfully complete the prescribed probation period of 1(one) year and thereafter serve the organization for at least 3(three) years i.e. overall 4 (Four) years.

The amount of the bond for candidates belonging to **General/OBC(NCL)/EWS** categories is **Rs. 2,00,000 (Rupees Two Lakhs Only)** and **Rs. 1,00,000/- (Rupees One Lakh Only)** for candidates belonging to **SC/ST/PwBD categories**, plus applicable interest.

## 9. HEALTH:

Before joining, candidates will have to undergo Pre-Employment Medical Examination by the DVC Medical Board and the decision of the Board will be final and binding. No relaxation in health standards is allowed.

## 10. GENERAL INFORMATION AND INSTRUCTIONS:

- (i) Only Indian Nationals are eligible to apply.
- (ii) Before applying online /appearing for document verification, the candidate should ensure that he/she fulfils the eligibility criteria and other norms mentioned in this advertisement hosted on the DVC website [www.dvc.gov.in](http://www.dvc.gov.in). In case, it is detected at any stage of the recruitment process that a candidate does not fulfil the eligibility norms and/or that he/she has furnished any incorrect/false information or has suppressed any material/fact(s), his/her candidature shall stand automatically cancelled. If any of the above shortcomings is/are detected even after the appointment, his/her services are liable to be terminated without notice.
- (iii) The candidature of candidates at all stages of the selection process will be purely provisional subject to satisfying the prescribed eligibility criteria.
- (iv) Essential qualification should be from an **Indian University/Institute** recognized by **AICTE/appropriate statutory authority**.
- (v) **Selected candidates may be posted at any of the DVC establishments.**
- (vi) Candidates with Diploma not having approval by the AICTE/appropriate statutory authority are not eligible to apply for the posts. Candidates in this connection are advised to bring **proof of AICTE/appropriate statutory authority approval in the form of a print-out of AICTE notification from their website showing the name of the College/Institution** and the course or any other documentary proof issued by the College/University/Institution. **The onus lies on the candidate to prove his/her**

**eligibility in all respects by submitting the required documents.**

- (vii) Whether CGPA/OGPA/DGPA or Letter Grade in a diploma is awarded, its equivalent percentage of marks should be indicated in the application form as per norms adopted by the University/Institute.
- (viii) **Illustration towards calculating marks obtained and maximum marks for filling in the online application form** – “Percentage of marks obtained by the candidate in the Diploma shall be calculated based on the practice followed by the University/Institution from where the candidate has obtained the Diploma. In case the candidates are awarded grades/CGPA instead of marks, the conversion of grades/CGPA to percentage of marks shall be based on the procedure certified by the University/Institution from where they have obtained the Diploma“.
- This has been further illustrated below:**
- Suppose: Number of subjects = 6 (each of maximum marks of 100) CGPA equivalent percentage obtained by the candidate = 94% Therefore, Maximum marks obtained =  $6 \times 100 = 600$ , Marks obtained =  $(94 \times 600) / 100 = 564$
- (ix) **In case the University/Institution does not have any scheme for converting CGPA/Grades into equivalent marks, the equivalence would be established by dividing the candidate's CGPA by the maximum possible CGPA and multiplying the result with 100.**
- (x) Candidates employed with Government Departments/Public Sector Undertakings/Autonomous Bodies are required to produce a “**No Objection Certificate**” from their present employer at the time of **Documents verification** positively.
- (xi) DVC reserves the right to cancel/ restrict/ enlarge/ modify/ alter the recruitment/selection process, if the need so arises, without issuing any further notice or assigning any reason whatsoever.
- (xii) The decision of DVC in all matters relating to eligibility, acceptance or rejection of online applications, the penalty for false information, mode of selection, selection and allotment of posts and places of postings to the selected candidates shall be final and binding on the candidate. No enquiry/ correspondence or telephonic discussion will be entertained in this regard. If any shortcoming is detected even after the appointment, the services of such candidates are liable to be terminated without notice.
- (xiii) During physical verification, all signatures should be identical. Different styled Signature on various occasions during Recruitment activities may lead to the rejection of the candidature.
- (xiv) Mere being called for Computer based Test shall not vest any right in a candidate to be called for further selection process i.e. Documents Verification.
- (xv) In order to avoid last minute rush, the candidates are advised to apply early enough. DVC will not be responsible for network problems or any other problem in submission of Online Application.
- (xvi) **The eligibility of the candidate for final selection will be confirmed after Document Verification.**
- (xvii) **Any subsequent amendment/notice/clarification etc., if any, shall be made available on the DVC website only.** As such, candidates are advised to keep visiting the DVC website [www.dvc.gov.in](http://www.dvc.gov.in) regularly for important updates till the completion of the recruitment process for the posts.
- (xviii) No interim correspondence will be entertained on any account during the recruitment process. Canvassing in any form will be treated as disqualification.
- (xix) Only Xerox copies of documents will be retained. However, records of other than selected candidates are not maintained after the completion of the recruitment process.
- (xx) While preparing the final merit list, if two or more candidates secure equal marks, the merit of such group of candidates will be as per their date of birth (**i.e. more senior in age will be placed first before junior in age**).



- xx) If any certificate etc. is issued in a language other than Hindi / English, candidates are advised to submit a certified translation of the same in either Hindi or English language at the time of documents verification or whenever called for.
- xxi) **Schedule for Computer Based test (CBT) will be uploaded in DVC website.**
- xxii) **In case a candidate submits more than one application for the same post, the application with the latest registration number shall only be considered.**
- xxiii) For the Un-Reserved (UR) vacancy, SC/ST/EWS/OBC (NCL) candidates can apply subject to meeting with all general standards of eligibility.
- xxiv) There is no provision of re-checking / re-evaluation of response Sheets / Answers.
- xxv) Management reserves the right to raise or lower the qualifying standards in any stage of the selection process depending on availability of sufficient number of candidates.
- xxvi) Complaints attributable to the incompatibility of the Client Systems, ignorance of users, non availability of internet connectivity or any other aspects beyond the direct control of DVC employees or systems will not be entertained.
- xxvii) All information regarding this recruitment process would be available in the career section of DVC website only. <https://www.dvc.gov.in/cms-web/recruitment-notice> . Applicants are advised to check the website periodically for important updates. Once registered for DVC, all correspondences shall be made through their registered email ID / SMS or candidate login only.
- xxviii) Legal jurisdiction will be only at any appropriate court in Kolkata in case of any dispute.

## **11. DOCUMENTS/TESTIMONIALS TO BE BROUGHT MANDATORILY AT THE TIME OF DOCUMENT VERIFICATION (DV) & AFTER COMPUTER BASED TEST FOR SELECTED CANDIDATES**

**Candidates must bring one set of self-attested photocopies along with ORIGINALS of the following documents/testimonials at the time of documents verification.**

- i. Printout of **ONLINE Application Form**.
- ii. Proof of **Date of Birth** (Class Xth Board Certificate or Class Xth Passing Certificate)
- iii. Valid **Certificates & Mark sheets** of Class Xth, XIIth, Diploma in Engineering/Mine Surveying (semester-wise/year-wise).
- iv. Valid Diploma in Engineering/Mine Surveying.
- v. Surveyor's certificate of competency issued by DGMS , applicable to Mine Surveyor.
- vi. Valid **SC/ ST/ OBC (NCL)/ EWS/ PwBD certificate (in the prescribed format)**, if applicable, *The minimum degree of Disability for Persons with Benchmark Disability candidates would be 40%.*
- vii. Valid **Age relaxation cum Domicile Certificate / Discharge Certificate**, etc., if applicable in the prescribed format issued by a competent authority.
- viii. Valid **Experience Certificate(s)**, if applicable.

- ix. **No-Objection Certificate (NOC)** from the current employer if working in a PSU/Central Govt./State Govt./Semi-Govt./etc.
- x. **Four (4) recent passport size colored photographs.**
- xi. **Identity Proof** (Aadhaar Card/PAN card/ Passport/ Driving License/ Voter ID card).

## 12. IMPORTANT INSTRUCTIONS ON HOW TO APPLY FOR DVC ONLINE APPLICATION/REGISTRATION

- **MODE OF APPLICATION:** candidates have to register themselves **ONLINE** at the DVC website [www.dvc.gov.in](http://www.dvc.gov.in) → *Career* → *Recruitment* → *Recruitment Notices*.
- **Closing date of ONLINE applications shall be 04/07/2024 (Till 23:59 hrs).**
- **Closing date of payment of application fees is 04/07/2024**
- Before applying ONLINE, candidates are advised to read the Detailed Advertisement/Notice carefully and will ensure that they must fulfil the essential requirements of the post and other conditions as mentioned in the Notice.
- **No other means/mode of application shall be accepted.**
- **A Candidate can apply for one post/discipline only.**
- Candidate can select any preferred test centre (3 preferences). However, allotment of Test Centres to the candidates is at the discretion of DVC.
- If a candidate is not exempted from payment of application fees (**only SC/ST/PwBD/Departmental candidates are exempted**), he/she[**GEN/OBC(NCL)/EWS** category candidates] will be required to pay a non-refundable application fee of **Rs 300/- (Rupees Three Hundred Only)**.
- **Application fee once paid will not be refunded under any circumstances.** Candidates are, therefore, requested to verify their eligibility before paying the application fee.
- **Application process will be treated as complete only on submission of application fees, wherever applicable.**
- Candidates are advised to upload legible copies of the following documents while submitting online application in the space earmarked in the online application: -
  - a) Scanned copy of recent passport size colour photograph in the format mentioned in the online application. (Photograph should be minimum 200 dpi in JPG format. The size should be between 10kb to 100kb)
  - b) Scanned copy of signature in the format mentioned in the online application. (Signature should be minimum 200 dpi in JPG format. The size should be between 10kb to 50kb)
  - c) Date of Birth Proof: Matric / Birth Certificate (wherein DOB is mentioned) in .pdf format (max. 1MB)
  - d) Qualification Certificate along with Mark Sheets of all years / semesters along with Proof of norms adopted by the Technical Board / Institute to convert CGPA / OGPA / DGPA into percentage (if applicable) (all Qualification Certificate & Mark Sheets are required to be scanned in .pdf format) (max. 1MB)

- e) Candidates working in Govt. / PSU are required to apply through the proper channel and need to upload “No-Objection Certificate” from the present employer in .pdf format. (max. 1MB).
- f) Caste Certificate in the prescribed Govt. of India format issued by Competent Authority (if applicable) in .pdf format (max. 1MB)
- g) Persons with Benchmark Disability (PwBD) Certificate in the prescribed Govt. of India format issued by Competent Authority (if applicable) in .pdf format (max. 1MB)
- h) In case of requirement of scribe, Certificate in prescribed format issued by Competent Authority as per Govt. of India guidelines regarding physical limitation by the candidate to write should be produced.
- i) Domicile cum Age relaxation certificates for Candidates from J&K State / Riots Victim in the prescribed Govt. of India format issued by Competent Authority (if applicable) (max. 1MB) in pdf format
- j) EWS Certificate, as prescribed by Government of India. (max. 1MB).

Applicants are advised to take a print out of the submitted online application and note down the application number and password generated at the time of online registration. The candidates called for Document Verification are required to produce the above uploaded documents in original for verification. Candidates are not required to forward the hard copies of applications to DVC.

### 13 .Following Information/documents to be kept ready before applying ONLINE:

- i) **One recent scanned photograph of size 3.5cm X 3.5 cm (Between 10 KB to 100 KB) and signature of size between 10 KB & 50 KB to be uploaded while applying.** The photograph should be with a clear front view of the candidate without a cap or sunglasses. Identical photos shall be used throughout the selection process.
- ii) Candidates will also have to upload their Class Xth /XIIth Certificate or marksheet, essential qualification certificate, etc. along with photograph and signature.
- iii) **Certificates/Mark sheets relating to Academic & Professional qualifications**, etc. to be kept ready for entering marks.
- iv) The **E-mail ID & Contact No.** entered in the online application form must remain valid for at least one year from the date of the Notification for all future correspondences. Please enter email correctly since all important communications shall be through emails only.
- v) After having arranged all information/documents, candidates should visit the DVC website: [www.dvc.gov.in](http://www.dvc.gov.in) and follow the instructions given in this detailed Notice/Advertisement. **Step 1** is to fill in all the particulars in the Online Application Form. **Step 2** is to upload the photograph, signature and other relevant documents/certificates. **Step 3** is to Preview the application form and the data can be edited if required and updated, **Step 4** is to pay the application fee (if applicable) and then final **Step 5** is to **SUBMIT** the application with the payment receipt number. Application once submitted cannot be edited. Only Submitted applications will be accepted.
- vi) No request with respect to the change in any data entered by the candidate will be entertained once the application is submitted successfully.

- vii) After successful submission of the online application including uploading of scanned photograph and signature, a **Unique Application Number** will be generated and thereafter candidates need to take a printout of the application so made. Printout without a system-generated number will not be accepted in any case.
- viii) **Incomplete applications/ applications without application fees (if applicable) will summarily be rejected.**
- ix) Candidates are required to keep the printout of the **Online Application Form** and keep it with him/her safely for future reference.
- x) Candidates are also required **to bring the ORIGINALS** of all the documents as mentioned at **SL. No. 11 of this Notice/Advertisement** pertaining to Proof of DOB, Academic & Professional Qualification, Caste & Disability Certificate (if applicable) etc. **at the time of Documents verification. The self-attested documents submitted in hard copy along with the online application will be verified with originals at the time of documents verification.** If any candidate is found ineligible while verifying the documents, he/she shall not be considered for selection process.
- xi) **No hard copy of the Online Application Form or Certificates/Testimonials, etc. is required to be sent to DVC HQ before appearing for the Document Verification.**
- xii) Management reserves the right to cancel / restrict / enlarge / modify / alter the recruitment / selection process, if need so arises, without issuing any further notice or assigning any reason.

#### 14. IMPORTANT INFORMATION:

Candidates are required to apply **ONLINE** only (which is mandatory) by clicking the “**APPLY ONLINE**” link available at the DVC website [www.dvc.gov.in](http://www.dvc.gov.in) → Career → Recruitment → *Recruitment Notices*. *The online registrations will remain activated from **05/06/2024** till 23:59 hrs of **04 /07/2024**.*

Candidates are also required to bring the printout of the **Online Application Form** enclosing all supporting documents in **ORIGINAL** along with one set of **self-attested photocopies of supporting documents** (mentioned at **Sl. No. 11 of this Advertisement/Notice**) at the time of document verification.

**Before applying, candidates should keep mark sheets of X<sup>th</sup>, XII<sup>th</sup>, Diploma, etc. as applicable for entering marks & a scanned copy of coloured photograph & signature ready to be uploaded while applying ONLINE.**



## 15. IMPORTANT DATES:

Commencement of ONLINE Submission of Application to DVC	05/06/2024
Closing Date for ONLINE Submission of Application to DVC	04/07/2024 (Till 23:59 hrs)
Availability of Admit Cards on website/Date of Written Test(CBT)	Shall be notified later the DVC website only <a href="http://www.dvc.gov.in">www.dvc.gov.in</a> (Under Careers→Recruitment→Recruitment Notices)
List of Provisionally Shortlisted Candidates, Date for Documents verification	
<b>Helpline No:- For Technical Queries: +91-9289484657/9717434395</b> (During Official working hours only (9 AM to 6 PM) <b>For Eligibility Queries: 033-6607 2539/2532</b> <b>Email-ID: <a href="mailto:helpdesk@dvcrecruitment.co.in">helpdesk@dvcrecruitment.co.in</a>/ <a href="mailto:recruitment@dvc.gov.in">recruitment@dvc.gov.in</a></b>	

**Note: 1)** Any corrigendum and subsequent changes in the date of Computer Based Test, Documents verification, Venue, etc. will be notified on the DVC website only. Therefore, all applicants are requested to visit the DVC website [www.dvc.gov.in](http://www.dvc.gov.in) (Careers → Recruitment → Recruitment Notices) regularly for important updates.

**2) Test date will be notified later in DVC website.**

**Executive Director (HR)**  
**For & on behalf of DVC**

**Indicative Syllabus for Computer Based Test (CBT) for various disciplines  
(Junior Engineers & Mine Surveyor)****I. Salient Points**

- a. **Pattern of question paper:** The question paper will be bilingual i.e. both in **English and Hindi, except the test of English knowledge(objective)**. All the questions will be objective type and shall have 4 options of which one option will be correct.
- b. **Duration of the computer-based test** – Total duration would be **2 hours** comprising of the General Aptitude Test (GAT) and Technical Knowledge Test (TKT)
- c. **No. of questions in each part i.e. in General Aptitude Test (GAT) and Technical Knowledge Test (TKT)** - There will be 30 numbers of General Aptitude Test (GAT) and 70 numbers of questions in Technical Knowledge Test (TKT) and. Thus, there will be **100 numbers** of questions.
- d. **Marks of each question and total marks of the question paper** – Each question would carry **1 mark** and the total marks of the paper (General Aptitude and Technical Knowledge) would be **100**.
- e. **Negative marking** - There will be a negative marking of **0.25 mark** for each wrong answer. However, no mark will be deducted for not attempting the question by candidate.

**II. Indicative Syllabus for Computer Based Test (CBT) for various Disciplines.****Syllabus for General Aptitude Test (GAT)**

**A. General Intelligence & Reasoning:** The Syllabus for General Intelligence would include questions of both verbal and non-verbal type. The test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series, etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationships, arithmetical computations, and other analytical functions.

**B. General Awareness:** Questions will be aimed at testing the candidate's general awareness of the environment around him/ her and its application to society. Questions will also be designed to test knowledge of current events and of such matters of everyday observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to India and its neighboring countries especially pertaining to History, Culture, Geography, Economic Scene, General Polity and Scientific Research, etc. These questions will be such that they do not require a special study of any discipline.

**C. General English:** English Language & English Grammar. Narration, Voice, Basic Sentence Patterns. Transformation of Sentences, Determiners and Preposition, Tenses, Prefix, Suffix, Parts Of Speech- Common errors (Noun, Pronoun, Articles, Adverb, Punctuation, Preposition etc.) , Modals, Phrases, Idioms, Vocabulary

# **Syllabus for Technical Knowledge Test (TKT)**

## **1. Syllabus for Technical Knowledge Test (TKT) for Mechanical**

### **A. Fundamentals & basics**

- Mechanical drawing
- Measurement & error
- Pipe & fittings
- Refrigeration and air conditioning
- Material inspection methods

### **B. Power Plant Engineering**

- Steam Power Plant
- Rankine Cycle
- Carnot cycle
- Efficiency of Steam Power Plant
- Otto Cycle, Diesel Cycle & Brayton Cycle
- Fans & Pumps
- Coal and its analysis
- Steam Generator basic
- Steam Turbine basic & Nozzles
- Hydroelectric Power Plant
- Advantage & Disadvantage of Hydel power
- Hydrographs
- Hydro Turbines
- Cavitation
- Performance of Turbine
- Cooling Tower and Condenser basics

### **C. Basic Thermodynamics**

- Open System, Closed System and Isolated System
- Quasi static process
- Point Function and Path function
- 1<sup>st</sup> Law, 2<sup>nd</sup> Law and Zeroth Law of thermodynamics
- Kelvin Planck Statement and clausius statement
- Dead state
- Joule-Thomson Co-efficient basic
- Concept of Heat engine and Heat Pumps
- Refrigeration cycle (i) Vapour compression cycle (ii) Vapour absorption cycle
- Name of refrigerant and their nomenclature
- Mollier diagram

### **D. Fluid Mechanics**

- Properties of Fluid
- Pressure measuring devices
- Hydrostatic Force
- Buoyancy and stability
- Bernoulli's Energy Equation
- Compressible Flow and Incompressible Flow
- Basic of Turbomachinery

## **E. Heat Transfer**

- Heat and Importance of Heat transfer
- Modes of heat transfer
- Fourier's law of heat conduction
- Heat transfer by convection- basic
- Heat transfer by Radiation
- Absorptivity
- Reflectivity
- Transmissivity
- Black Body
- Stefan-Boltzmann Law
- Type of Heat Exchanger
- LMTD

## **F. Material Science**

- Normal Stress and Strain
- Stress-Strain diagram
- Elasticity and Plasticity
- Hook's Law
- Shear Stress and Strain
- Shear Force and Bending Moment

## **G. Manufacturing Science**

- Metals and Alloys
- Heat Treatment
- Dry sand mould casting
- Die Casting
- Rolling, Forging and Drawing forming process
- Advantage and Disadvantage of cold rolling & Hot Rolling
- Arc welding, Gas welding and Thermit welding
- Cutting Tools
- Different measuring Tools



## 2. Syllabus for Technical Knowledge Test (TKT) for **Electrical**

### **A. Basic Electrical Engineering concepts: -**

- Concept of Potential difference. Current and resistance. Ohm's law, insulation resistance. Kirchhoff's law,
- A.C. Fundamentals: Sinusoidal voltage and currents., concept of cycle period, frequency, instantaneous, peak, average, r.m.s. values, peak factor, and form factor, phase difference, lagging, leading and phasor representation.
- A.C circuits of pure resistance, inductance and capacitance and corresponding voltage-current phasor diagrams. Basics of series and parallel R-L, R-C, R-L-C circuits.
- Concept of active and reactive power and power factor.
- Polyphase AC circuits: Concept of three-phase supply and phase sequence. Balanced and unbalanced loads

### **B. Electrical Machines under Powerhouse: -**

- Generator (basic principle & philosophy)
- Motor (basic principle & philosophy)
- Basic Electrical Protection of Generators and Motors
- Testing of Generators & Motors
- Switchgears

### **C. Transmission & Distribution System: -**

- Transformers
- Circuit Breakers
- Other switchyard equipment (CT, PT, CVT, LA, Wave Trap, Isolators, Insulators, BusBar, Conductor etc.)
- Basic Testing of transformers, Circuit breakers, CT PT etc.
- DC System including Battery Bank
- Basic Electrical Protection philosophy of Transmission Line & Equipment such as Transformer etc.

### **D. Metering System**

- Energy Meter (Basic principle of single and 3-phase energy meter)
- ABT meter

### 3. Syllabus for Technical Knowledge Test (TKT) for C&I

#### A. Basics & Fundamentals.

#### B. Basics of Measurements, Transducer, Transmitters, Indicators, Gauges

- Basics of measurement philosophy of different parameter like Pressure, Temperature, Level, Flow, Position etc.
- Measurement of Pressure i) Absolute, ii) Gauge and iii) Differential pressure
- Principles of electronic pressure measurement.
- Measurement of Temperature, Basic types of temperature measuring devices, i) Mechanical devices (liquid/gas-in-glass thermometers, bimetallic strips, bulb & capillary, pressure type etc.) ii) thermocouples iii) RTDs and thermistors iv) infrared and optical pyrometers, etc.
- Thermocouples principle of operation and Major types of Thermocouples
- Resistance Temperature Detector (RTD) principle of operation, Major Types of RTD.
- Measurement of Level: Level Transmitter Types i) Capacitance ii) Ultrasonic iii) Radar iv) Displacer Type v) By measurement of Pressure vi) Differential Pressure (DP) Type., etc.
- Level Switch Types i) Conductive ii) Float iii) Capacitive iv) Resistive, etc.
- Measurement of Flow i) DP (Differential Pressure) Type ii) Ultrasonic iii) Turbine Type iv) Mass Flow v) Target Type vi) Electromagnetic vii) turbine viii) open channel flow meters, etc.
- Types of Flow Element for DP Type Flow Transmitter i) Orifice ii) Flow Nozzle iii) Pitot Tube iv) Aerofoil, etc.
- Measurement of Vibration: Displacement, Velocity, Acceleration, Vibration Measurement Probes Types
- Measurement of Position: LVDT, Eddy, Capacitive, Optical, Ultrasonic etc.
- Measurement of Speed: Hall, Eddy etc.
- Gas and Liquid Analysers, Air Pollution monitoring, Oxygen Analyzer, SWAS, pH and conductivity measurement etc.
- Field Instruments for measuring Process parameter

C. Pneumatic Actuator, Power cylinder, Pneumatic Positioner, Pneumatic Smart Positioner, I/P Converter, Solenoid Valve, Servo Valve, Proportional Valve.

D. Semiconductor and Diodes, Electronic Devices and Circuits, Integrated Circuits, Transistors, SCR DIAC & TRIAC, Amplifiers, Oscillators, Power Electronics, Analog Electronics, OPAMPS, Filters.

E. Number Systems & Boolean Algebra, Digital Electronics , Different number systems – Binary, Octal, Decimal, Hexadecimal ,Conversion from one number system to another, Boolean variables – Rules and laws of Boolean Algebra, Logic Gates – AND, OR, NOT, NAND, NOR , XOR, XNOR, Logic Circuits and Memory Device, Flip Flops, Analog to Digital and Digital to Analog Conversion, Microprocessors .

F. Principles of Communication and Network System, Amplitude- and frequency modulation, Pulse Code Modulation and Differential Pulse Code Modulation. Delta Modulation and Adaptive Delta modulation, Amplitude Shift Keying, Frequency Shift Keying, Phase Shift Keying, Time Division Multiplexing, Optical fiber and Ethernet, Basic Computer Networking system.

G. Control System: P-I-D Control, Feedforward Control, Lead Lag Control, Relays, Microcontrollers, Sequential control, PLC, DCS (Distributed Control System), SCADA.

#### **4. Syllabus for Technical Knowledge Test (TKT) for Civil**

##### **A. Fundamental of Civil Engineering & knowledge of different materials**

##### **B. Concrete Technology –**

- Concept of materials
- Concrete mix,
- Cement type - composition of cement,
- Different tests carried out & its requirement.
- Concrete Structures
- Reinforcement steel detailing – strength, detailing, types, precautions & requirement
- Basic knowledge of Concrete design & parameters of IS:456, IS-875

##### **C. Construction material & its management**

##### **D. Structural Engineering-**

- Type of structures
- Strength of materials
- Basic knowledge of Steel design & parameters of IS 800, IS 802
- Knowledge of different connections – weld, B&N

##### **E. Soil Mechanics & Foundation Engineering-**

- Type of foundations & its uses
- Settlement & precautionary measures
- Soil Investigation & its requirement, type of tests, instruments used etc.
- Knowledge about bearing capacity of soil

##### **F. Highway & Railway engineering-**

- Pavement type & its uses
- Knowledge of Railway embankment, sleepers, gauge, rail type etc.
- Material knowledge & different type of tests carried out
- Composition of rigid & flexible pavement, basic design

##### **G. Water supply & sanitation**

- STP & uses of treated sewage water
- Effluent Treatment Plant
- Wastewater management
- Rainwater harvesting – its requirement & uses

##### **H. Surveying – its uses, requirements, types, instruments used etc.**

##### **I. Quality related issues -its uses, functions & necessity**

##### **J. Miscellaneous:**

- Knowledge about estimate preparation & its uses
- Knowledge about Fly ash products & its uses
- Knowledge about activities related to site supervision, mode of measurement.
- Knowledge about different material used for repairing / water proofing etc.
- Technical specification
- Knowledge about different activity for construction of buildings, bridges, water retaining structures, embankments etc.

## 5. Technical Knowledge Test (TKT) for **Communication**

- A. Basic Electricity** Classification of materials into conductor, semiconductor, insulator. various types of relays, switches and connectors, Concept of capacitance and capacitors; Ohm's law, Power and Energy, KVL & KCL and their applications , Concept of alternating voltage & current; Cells and Batteries
- B. Electronic Devices and Circuits** Active and passive components; Semiconductor Diode; Bipolar transistor & their circuits; Transistor Biasing Stabilization of operating point: Single-stage transistor amplifier, field-effect transistor, MOSFET circuits applications. Thyristor and UJT. Regulated Power Supply, Multistage Transistor Amplifier, Feedback in Amplifier: Sinusoidal Oscillators; Opto Electronics Devices and their applications: Operational Amplifier. Wave shaping and switching Circuits.
- C. Digital Electronics** Number system (binary and hexadecimal): Logic Gates Multiplexers and Demultiplexers: Latches and Flip Flops: Counters; Shift Registers; Memories; A/D and D/A converters,
- D. Communication** AM, FM and PM Modulation /Demodulation ; Pulse modulation - TDM, PAM, PPM, PWM, Multiplexing, Principles and applications of PCM. Introduction of Basic block diagram of digital and data communication systems, Digital Modulation Techniques - ASK, ICW, FSK, PSK: Characteristics/working of data transmission circuits; UART, USART: Modems; Protocols and their functions, brief idea of ISDN interfaces, local areas Network.



6. Technical Knowledge Test (TKT) for Mine surveyor Discipline.

Subject Knowledge: Multiple Choice Questions (MCQs)		
Sl. no	Subtopic	Detail Description
1	<b>Linear measurement:</b>	Instruments for measuring distance ranging, chain surveying; errors in chaining and plotting; optical square.
2	<b>EDM</b>	Principles of measurements; types; correction and selection of instrument.
3	<b>Angular measurement:</b>	Prismatic compass; bearing of lines; local attraction; magnetic declination.
4	<b>Plan Table Surveying:</b>	Methods contouring using plane table and micro-optic alidade.
5	<b>Miners' dials and other compass instruments</b>	Dialling; loose and fast needle surveying.
6	<b>Theodolite:</b>	Modern micro-optic theodolites; measurement of horizontal and vertical angles; theodolite traversing; traverse calculation; computation of coordinates; adjustment of traverse; temporary and permanent adjustment.
7	<b>Total Stations:</b>	Surveying by Total stations, errors, adjustments and applications.
8	<b>Levelling:</b>	Levelling instrument types of levelling; booking and reduction methods; temporary and permanent adjustment of levels; geometrical, trigonometric and physical levelling; characteristics and uses of contours; methods of contouring; traverse; co-ordinates and levelling problems.
9	<b>Tachometry &amp; Controlled surveys:</b>	Tachometry Triangulation; trilateration; application of GPS and Total Station in mine surveying. Use, care, testing, and adjustments of instruments.
10	<b>Field astronomy:</b>	Astronomical terms; determination of true bearing by equal altitude method; Gyro theodolite; principle and determination of Gyro north, astronomical triangle; conversion of time systems and precise determination of azimuth by astronomical methods.
11	<b>National grid:</b>	Map projection Cassini Lambert's polyconic and universal transfers Mercator; transformation of coordinates, vertical projections; mine models.
12	<b>Geodesy:</b>	Geod, spheroid and ellipsoid, geocentric, geodetic and astronomical coordinates, orthometric and dynamic heights.
13	<b>Photogrammetry:</b>	Introduction; scale of a vertical photograph; photographs versus maps; application of photogrammetry and remote sensing in mining.
14	<b>Theory of errors and adjustments</b>	Causes and classification of errors; inclines of precision; laws of weight propagation and adjustment of errors; adjustment of triangulation figures.
15	<b>Traversing</b>	along steep topography with or without auxiliary telescope.
16	<b>Area and volume calculation; different</b>	earth work and building estimation; laying out of rail and haul road curves; determination of azimuth latitude and longitude.

<b>methods and their limitations:</b>	Borehole surveying and calculations, dip, strike, outcrop and fault problems.
	Types of plans for opencast workings, their preparation, care, storage and preservation: legislation concerning mine plans and sections; duties and responsibilities of surveyors.
	Geological map reading. Application of computers in mine surveying and preparation of mine plan, 3D laser profiling of surfaces and bench / slopes.
	Profiling of benches, highwall, dumps
	Dump / Highwall stability monitoring using different instruments like Laser Scanner / Continuous Real Time Monitor
	True North determination, Triangulation, Topographic survey, Tacheometry survey, Survey adjustments & theory of Errors Continuous Real Time Monitor, Contouring Underground Mine surveys & opencast Mine Surveys, Correlation of Underground & Surface Surveys Subsidence Survey, Surveys for construction and development purpose. Responsibilities of survey department at the mine construction phase etc. Dip, Strike and fault problems. Coal heap Measurement. Overburden measurements. Duties and responsibilities of a surveyor as per coal mines regulations 2017.plans, type of plans Statutorily as per coal mines act Total station DGPS, 3DTLS & drone Surveying in Open cast Mines. Application of Computers & software's Knowledge of remote sensing 7 GIS Geomatics.

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