### RITES LIMITED

(A Govt. of India Enterprise) Shikhar, Plot No. 1, Sector – 29, Gurgaon – 122001



# Recruitment of engineering professionals on contract basis

RITES Ltd., a Nav Ratna Central Public Sector Enterprise under the Ministry of Railways, Govt. of India is a premier multi-disciplinary consultancy organization in the fields of transport, infrastructure and related technologies.

RITES Ltd. is in urgent need of dynamic and hard-working professionals as under:

						No. of Vacancies		
VC No. Post		UR	EWS	OBC (NCL)	sc	ST	Total	
14-R-1/24	Assistant Manager (Chemical)	2	-	-	-	-	2	

# **Age Limit**

Maximum Age	
40 Years	

Note: Age, experience, and all other eligibility criteria shall be reckoned as on the last date of submission of the application (cut-off date).

## Minimum Qualifications & Experience

VC No	Designation	Minimum Qualification*	Minimum post - qualification experience
14-R-1/24	Assistant Manager (Chemical)	Bachelors degree in Chemical Engineering or M.Sc (Chemistry)	1 year

# **Experience is defined as under:**

Candidate should have minimum 1 year of post-qualification experience in the field of Paint testing or relevant field

\*Candidate belonging to General/ EWS category (and candidates belonging to SC/ST/OBC(NCL)/PWD applying against unreserved posts) should have first class degree/ minimum 60% marks in Minimum Qualification for consideration against unreserved posts.

Reserved category candidates (SC/ST/OBC(NCL)/PWD as applicable) should have at least 50% marks in Minimum Qualification for consideration against reserved posts.

# **Note for Educational Qualifications:**

The candidate should possess Degree recognized by AICTE; from a University incorporated by an Act of Central or State legislature in India or other Educational Institutions established by an Act of Parliament or declared to be Deemed as University under Section 3 of the University Grants Commission Act, 1956. Sections A & B examination of the Institution of Engineers (India) which is treated as equivalent to Degree by Govt. of India and recognized by AICTE, shall also be accepted.

### **Relaxations & Concessions**

Reservation/ relaxation/ concessions to EWS/ SC/ST/OBC (NCL)/PWD/ Ex-SM/ J&K Domicile would be provided against reserved posts (where applicable) as per extant Govt. orders.

Relaxation in upper age limit to OBC (NCL)/ SC/ ST candidates shall be provided against reserved posts as per extant Govt. orders.

PWD candidates suffering from not less than 40% of the relevant disability shall only be eligible for the benefit of PWD. Such PWD candidates shall be eligible for relaxation of 10 years in upper age limit.

PWD candidates will have to meet the Physical Requirements and Functional Classifications which have been identified for the post as under:

Categories for which identified	Functional Classification	Physical Requirements	
Locomotor disability OA, OL, Leprosy Cured, Acid Attack Victims			

Persons with Disabilities belonging to the category/ categories for which the post is identified (as indicated in Table above) can also apply even if no vacancies are specifically reserved for them. Such candidates will be considered for selection for appointment to the post by general standard of merit.

**Functional Classification:** 

Code	Functions	
OL	One leg affected (R or L)	
OA	One arm affected	
OAL	One arm one leg affected	
BL	Both legs affected	
HI	Hearing Impaired	
LV	Low Vision	

## **Physical Requirements:**

Code	Physical Requirements
S	Work performed by sitting (on bench or chair)
ST	Work performed by standing
SE	Work performed by seeing
RW	Work performed by reading and writing
BN	Work performed by bending
MF	Work performed by manipulation by fingers
С	Work performed by communication
W	Work performed by walking
Н	Hearing/ Speaking
KC	Kneeling and Crouching
JU	Jumping
CL	Climbing

The above lists are subject to revision.

Based upon the performance in the Written Test and fulfilling the conditions of eligibility; candidates shall be shortlisted for Interview.

The weightage distribution of various parameters of the selection shall be as under:

Written Test - 60% Interview - 40%

(Technical & Professional proficiency - 30 %; Personality Communication & Competency – 10%)

Total - 100%

A minimum of 50% marks for UR/ EWS (45% for SC/ST/OBC (NCL)/PWD against reserved posts) in written test and a minimum of 60% marks for UR/ EWS (50% for SC/ST/OBC (NCL)/ PWD against reserved posts) in interview will be required to enable the candidate to be considered for placement on panel. There will be no minimum qualifying marks required in the aggregate.

#### Candidates should be called for interview in the ratio of 1:6 to the number of vacancies.

There will be 125 objective type questions carrying one mark each for a duration of 2.5 Hours. There will be no negative marking system applicable and therefore, no marks will be deducted in case of an incorrect answer. Candidates belonging to PwD Category are eligible for an additional compensatory time of 50 minutes.

Appointment of selected candidates will be subject to their being found medically fit in the Medical Examination to be conducted as per RITES Rules and Standards of Medical Fitness for the relevant post.

Candidates have the option to appear for interview either in Hindi or English.

## **Nature & Period of Engagement**

The appointment shall be purely on contract basis initially for a period of one year, extendable until completion of the assignment subject to mutual consent and satisfactory performance.

Selected candidates shall be liable for posting anywhere in India as per Company requirements.

## Remuneration

Pay, allowances and perks for the post would be as under:

Basic pay	Allowances	Other perks
Rs. 22660/- (1 to 3 % annual increment based on the performance)	70% in Non-metro cities 75% in Metro Cites other than Mumbai/Bangalore 80% for Mumbai/ Bangalore.	Medical & Accidental Insurance for self and Employer's contribution towards PF @ 12% would be borne by the company.

The Consolidated monthly Gross Emoluments including PF contribution of Employer for posting in Non – Metro city comes out to be ₹ 41,241/- which results in CTC of 4.94 LPA.

Remuneration mentioned above is only indicative. Actual remuneration shall depend upon place of posting and other terms & conditions of appointment.

The candidates will have to deposit the under mentioned amount of fees during online application:

Category	Fee	
General/OBC Candidates	Rs. 600/- plus applicable taxes	
EWS/ SC/ST/ PWD Candidates	Rs. 300/- plus applicable taxes	

For any difficulty/ queries regarding fee payment, candidates may contact on following only:

Helpdesk No: 011 – 33557000 Extension Code - 13221 Helpdesk e-mail id: pghelpdesk@hdfcbank.com

#### Note:

- a) Candidates should note that the fee submitted through any other mode except the mode specified, will not be accepted by RITES and such applications will be treated as without fee and will be summarily rejected.
- b) Persons with disabilities are given concession in the fee provided they are otherwise eligible for appointment. A PWDs candidate claiming age relaxation/fee concession will be required to submit along with their Detailed Application Form, certified copy of the PWD certificate as per latest GOI format.

### **How to Apply**

- 1. Before applying candidates should ensure that they satisfy the necessary conditions and requirements of the position.
- 2. Interested candidates fulfilling the above laid down eligibility criteria are required to apply online in the registration format available in the Career Section of RITES website, http://www.rites.com.
- 3. While submitting the online application; the system would generate 'Registration No.' on top of online form filled up by the candidate. Note down this "Registration No." and quote it for all further communication with RITES Ltd.
- 4. While filling up the required details, candidates are advised to carefully and correctly fill the details of "Identity Proof". Candidates are also advised to note the same and ensure the availability of the same Identity Proof as it will be required to be produced in original at later stages of selection (if called).
- 5. After filling up the required details under the "Fill/ Modify Application Form", candidate should submit the application.
- 6. The candidates are also advised to keep a copy of Application Form submitted with them and to carry the same at the time of the selection (if called).
- 7. A copy of this online APPLICATION FORM containing the registration number is to be printed, signed, and retained. The same is to be submitted at the time of Scrutiny of Documents along with SELF-ATTESTED SCANNED COPIES of the following documents strictly in the following order. (if called for document scrutiny):2 recent passport size colour photographs
  - a. High School certificate for proof of Date of Birth
  - b. Certificates of Academic & Professional qualifications and statements of marks of all the qualifications for all semesters/years (Xth, XIIth, Diploma/ Graduation/ Post-Graduation as applicable)
  - c. EWS/ SC/ST/OBC Certificate in the prescribed format by Govt. of India (if applicable)
  - d. Proof of Identity & Address (Passport, Voter ID, Driving Lisence, Aadhaar Card etc)
  - e. PAN Card

- f. Proof of different periods of experience as claimed in the Application Form (if applicable)
- g. Any other document in support of your candidature
- h. PWD Certificate as per latest format (if applicable).

# No documents are to be uploaded at the time of submission of applications.

- 8. In respect of claims made by you in your application with regard to experience, copies of experience certificates from your previous employer are to be submitted at the time document verification. In respect of current employment, experience certificate/ joining letter along with last months' salary slips, or, Form 16 and other documents which clearly prove your continuity in the job are to be submitted. In case your claim is not established from the proofs submitted by you; your candidature is liable to be rejected at the time document scrutiny. Please check your claims vis-a-vis the certificates in support thereof establishing your candidature. Incomplete application or insufficient proof at the time of document verification would entail rejection of your candidature. No additional information other than those furnished in the Application shall be allowed to be considered at a later stage. For proof of CTC/ salary, candidates shall have to submit a copy of their last Form No. 16/ Earning Card/ salary slip/ Appraisal letter/ any other suitable document.
- 9. 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) valid as on the crucial date i. e. last date stipulated for submission of application. 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 for ONLINE Registration of applications for this Advertisement.

The candidates should ensure that they belong to the OBC- Non Creamy Layer (NCL) category while applying for the posts against this Advertisement. Further, in addition to the community certificate (OBC), a declaration in the prescribed format as per **Annexure III** has to be furnished by the candidates during document verification, that he/she does not belong to the creamy layer on the crucial date i. e. last date stipulated for submission of application in this Advertisement.

The certificate produced shall not be older than one year on the crucial date i. e. last date stipulated for submission of application in this Advertisement. 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.

## **EWS Category**

The candidates applying against the vacancies reserved for EWS must possess Income and Asset Certificate as on the crucial date i. e. last date stipulated for submission of application in this Advertisement. EWS certificate should be as per Gov. of India format. In case of non-compliance to these stipulations, their claim for reserved status under EWS will not be entertained and the candidature / application of such candidates, if fulfilling all the eligibility conditions for General (UR) category, will be considered under General (UR) vacancies only.

As regards OBC NCL & EWS category candidates, candidates will be afforded opportunity of submission of the valid OBC NCL Certificate and EWS Certificate (as applicable) on the date of their joining, valid as on the crucial date i. e. the last date stipulated for submission of application in this Advertisement. Those reserved category candidates who shall not be able to produce valid certificate in support of their claim in the application form for belonging to reserved category even after this additional opportunity; they will be treated as UR Category candidates.

- 10. Hard copies of documents are not to be sent to this office through post/courier.
- 11. The original testimonials/documents along with one self-attested copy will have to be produced by the candidate(s) at the time of selection (if called).
- 12. Mere applying for the post/ submission of documents/ appearing or qualifying in the selection does not confer any right on the candidates for claiming selection. If it is found that a candidate does not fulfill the advertised eligibility criteria, his/her candidature will be summarily rejected.
- 13. Candidates should submit only one application for one vacancy and application once submitted cannot be altered. A valid e-mail ID is essential for submission of the online application. RITES will not be responsible for bouncing of any e-mail sent to the candidates. However, candidates can apply for any number of vacancies.
- 14. The candidates must submit all the details pertaining to his candidature viz. personal details, educational qualification details, experience details, category etc. Suppression, in this regard, if any, detected on a future date shall render the candidature liable for forfeiture.
- 15. If any claim made by a candidate is found to be incorrect, his/her candidature shall be summarily rejected.
- 16. Candidate has to bring duly filled two copies of Annexure A, documents in chronological order and submit at a time of Document verification/Selection process.

## **Venue & Time**

S. No.	Selection Round	Venue & Date
1	Written Test	Delhi-NCR
2	Interview (Subject to performance in Written Test)	Venue for the Interview shall be communicated to shortlisted candidates

### **General Instructions**

- 1. Management reserves the right to cancel/ restrict/ enlarge/ modify/ alter the selection/ recruitment process at any stage, without issuing any further notice or assigning any reason thereafter.
- 2. The number of vacancies may vary.
- 3. Candidates working in any organization shall be allowed to join RITES only after being properly relieved from their parent organization.
- 4. Before applying, the Candidates must satisfy themselves about their eligibility for the post applied for.
- 5. In case it is detected at any stage of recruitment that a candidate does not fulfill the eligibility norms and/or that he/she has furnished any incorrect/false information or has suppressed any material fact (s), his/her candidature is liable for cancellation. If any of these shortcomings is/are detected even after appointment, his/her services are liable to be terminated.
- 6. Any corrigendum/addendum to this advertisement will be displayed only on the Company's website www.rites.com.Therefore, applicants are advised to keep checking the Company's website for any update.
- 7. The period of training/internship shall not be counted towards post qualification experience.

- 8. Legal jurisdiction will be Delhi in case of any dispute
- 9. No train/bus fare / TA / DA shall be payable.
- 10. Age, experience, and all other eligibility criteria shall be reckoned as on the last date of submission of application (cut-off date).
- 11. Date of acquiring the qualification will be earliest of the following:
  - i. Last day of month in which final examination of qualifying degree has been held. In cases where exact date of written examination is stated, the same will treated as date of acquiring the qualification
  - ii. Date of declaration of result
  - iii. Date of issuance of marksheet
  - iv. Date of issuance of degree

There shall be no relaxation on this account. No further relaxation shall be provided in this regard.

12. Where a specialization is required in the qualifying degree in the educational qualification, candidate is required to submit a certificate from the University/ Institution clearly specifying the specialization in the qualifying degree.

#### **Syllabus for Written Test**

#### **ENGINEERING MATHEMATICS**

**Linear Algebra**: Matrix algebra, Systems of linear equations, Eigen values and eigenvectors. **Calculus**: Functions of single variable, Limit, continuity and differentiability, Mean value theorems,

Evaluation of definite and improper integrals, Partial derivatives, Total derivative, Maxima and minima, Gradient, Divergence and Curl, Vector identities, Directional derivatives, Line, Surface and Volume integrals,

Stokes, Gauss and Green's theorems.

**Differential equations**: First order equations (linear and nonlinear), Higher order linear differential equations with constant coefficients, Cauchy's and Euler's equations, Initial and boundary value problems, Laplace transforms, Solutions of one dimensional heat and wave equations and Laplace equation. **Complex variables**: Analytic functions, Cauchy's integral theorem, Taylor and Laurent series, Residue theorem.

**Probability and Statistics**: Definitions of probability and sampling theorems, Conditional probability, Mean, median, mode and standard deviation, Random variables, Poisson, Normal and Binomial distributions.

**Numerical Methods**: Numerical solutions of linear and non-linear algebraic equations Integration by trapezoidal and Simpson's rule, single and multi-step methods for differential equations.

#### CHEMICAL ENGINEERING

**Process Calculations and Thermodynamics:** Laws of conservation of mass and energy; use of tie components; recycle, bypass and purge calculations; degree of

freedom analysis. First and Second laws of thermodynamics. First law application to close and open systems. Second law and Entropy. Thermodynamic

properties of pure substances: equation of state and departure function, properties of mixtures: partial molar properties, fugacity, excess properties and activity coefficients; phase equilibria: predicting VLE of systems; chemical reaction equilibria.

**Fluid Mechanics and Mechanical Operations:** Fluid statics, Newtonian and non-Newtonian fluids, Bernoulli equation, Macroscopic friction factors, energy balance, dimensional analysis, shell balances, flow through pipeline systems, flow meters, pumps and compressors, packed and fluidized beds, elementary boundary layer theory, size reduction and size separation; free and hindered settling; centrifuge and cyclones; thickening and classification, filtration, mixing and agitation; conveying of solids.

**Heat Transfer:** Conduction, convection and radiation, heat transfer coefficients, steady and unsteady heat conduction, boiling, condensation and evaporation; types of heat exchangers and evaporators and their design.

Mass Transfer: Fick's laws, molecular diffusion in fluids, mass transfer coefficients, film, penetration and surface renewal theories; momentum, heat and mass transfer analogies; stagewise and continuous contacting and stage efficiencies; HTU & NTU concepts design and operation of equipment for distillation, absorption, leaching, liquid-liquid extraction, drying, humidification, dehumidification and adsorption.

**Chemical Reaction Engineering:** Theories of reaction rates; kinetics of homogeneous reactions, interpretation of kinetic data, single and multiple reactions in ideal reactors, non-ideal reactors; residence time distribution, single parameter model; non-isothermal reactors; kinetics of heterogeneous catalytic reactions; diffusion effects in catalysis.

**Instrumentation and Process Control:** Measurement of process variables; sensors, transducers and their dynamics, transfer functions and dynamic responses of simple systems, process reaction curve, controller modes (P, PI, and PID); control valves; analysis of closed loop systems including stability, frequency response and controller tuning, cascade, feed forward control.

**Plant Design and Economics:** Process design and sizing of chemical engineering equipment such as compressors, heat exchangers, multistage contactors; principles of process economics and cost estimation including total annualized cost, cost indexes, rate of return, payback period, discounted cash flow, optimization in design.

**Chemical Technology:** Inorganic chemical industries; sulfuric acid, NaOH, fertilizers (Ammonia, Urea, SSP and TSP); natural products industries (Pulp and Paper, Sugar, Oil, and Fats); petroleum refining and petrochemicals; polymerization industries; polyethylene, polypropylene, PVC and polyester synthetic fibers.

### **Communication with RITES**

Any information regarding this recruitment process would be made available on the email address provided by the candidate at the time of registration and/or shall be uploaded on RITES website. Candidates are advised to periodically check the site for further updates.

Candidates are encouraged to go through the detailed advertisement and read the "Frequently Asked Questions (FAQs)" uploaded on RITES website under Career section to solve their queries.

Queries if remaining should be sent to rectt@rites.com only and contain the following particulars:

- i. VC No.
- ii. REGISTRATION/ROLL NO.
- iii. NAME OF CANDIDATE IN FULL AND IN BLOCK LETTERS.
- iv. Valid email address as given in the application Communications not containing above particulars shall NOT BE ATTENDED TO.

Communications not containing above particulars shall NOT BE ATTENDED TO. Any query/ issue should be brought to notice of RITES well in advance of the due date.

RITES will not be responsible for non-submission of application due to issues brought to notice at the last moment. Queries related to information already provided in the advertisement may not be attended to.

S. No.	Particular	Date
1	Commencement of submission of online application and online payment of fees	16.08.2024
2	Last date of submission of online application and online payment of fees	16.09.2024
3	Date of Issuance of Admit Card for written test	17.09.2024
3	Date of Written Test	27.09.2024