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The Junior Engineer examination is the Staff Selection Commission recruitment through which someone holding an engineering degree or diploma enters the central government's construction and engineering organisations as a...



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श्रीमती संघमित्रा

वरिष्ठ व्याख्याता, डाइट बाड़मेर (सहयोग)
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सुरेश कुमार सैन

व्याख्याता (भूगोल) · रा.उ.मा.वि. रामसीन मूंगड़ा



वनिता कुमारी

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करियर मार्गदर्शन कार्यशाला, डाइट बाड़मेर (14-17 जुलाई 2026) में विकसित व लोकार्पित
Developed & unveiled at the Career Guidance Workshop, DIET Barmer (14-17 July 2026)

यह एक स्वतंत्र परियोजना है, जो सरकार की आधिकारिक करियर-मार्गदर्शन सामग्री पर आधारित है। · An independent project based on the Government's official career-guidance content.

1 About this career

The Junior Engineer examination is the Staff Selection Commission recruitment through which someone holding an engineering degree or diploma enters the central government's construction and engineering organisations as a technical officer. It fills posts in the Border Roads Organisation, the Central Water Commission, the Brahmaputra Board, the Central Public Works Department and others, in the civil, electrical and mechanical branches. The same examination also fills posts such as Junior Engineer (Telecom), Junior Engineer (Quality Surveying and Contract), and Scientific Assistant in the India Meteorological Department. The Junior Engineer is the person who stands on the site in a technical capacity — taking measurements, checking quality, preparing estimates and watching the progress of the work. Roads, bridges, dams, canals and government buildings are built under supervision at exactly this level.

2 At a glance

Minimum qualification	A degree in engineering in the relevant branch; OR a three-year diploma in that branch together with two years of working experience. The two routes are not equal — the experience condition falls only on the diploma holder
Recruiting body	Staff Selection Commission (SSC), Government of India — organisations include the Border Roads Organisation, the Central Water Commission and others
Age limit	Up to 30 for most organisations and up to 32 for some — it varies by organisation, so read the table in the notice
Starting salary	Level 6 of the CENTRAL pay matrix — a basic of ₹35,400
Demand	One examination, several organisations and three branches — the branch is settled by your degree or diploma

3 What you need

INTERESTS

- An interest in construction, structures and machines
- Public infrastructure — roads, bridges, dams and buildings
- Going to site and checking the work technically

ABILITIES

- Mathematical and technical ability, and accuracy in measurement and estimation
- Practical dealing with contractors and workers
- The ability to read a drawing and translate it onto the ground

KEY SKILLS

- Survey, measurement and recording in the measurement book
- Testing of materials and quality control
- An understanding of safety standards and site management
- Estimation and rate analysis
- AutoCAD and branch-specific software
- A working knowledge of contracts and tendering

4 How to get there

- 1 Pass Class 12 in the science stream with physics, chemistry and mathematics; or take admission to a polytechnic diploma directly after Class 10, which is a common and inexpensive route in Rajasthan.
- 2 Complete an engineering degree (B.E./B.Tech.) or a three-year diploma in the relevant branch — civil, electrical or mechanical. The branch you choose decides which organisations and which posts you are eligible for.
- 3 If you hold a diploma, read this carefully, because it is the condition that causes the most confusion: a diploma must be accompanied by two years of working experience — in planning, execution or maintenance. That condition does not fall on degree holders. So a diploma does not close this door, but it does not open it immediately either; two years of experience have to be gathered first.

- 4 One practical conclusion follows for students in Rajasthan: the state's own Junior Engineer recruitment sets no experience condition on a diploma. So a diploma holder may be eligible for the state recruitment straight away and for this central one two years later. It is sensible to plan for both — attempting the state recruitment while the very experience that the central one will ask for accumulates.
- 5 Watch the age: it runs up to 30 or 32 depending on the organisation, and the notice gives an organisation-wise table. Do not assume a single figure.
- 6 Apply online when the notice appears on the Commission's website.

MAIN EXAMS

- The qualification condition is the most important thing about this examination and it needs to be read in full. The notice gives an organisation-wise table, and its form is: a degree in engineering in the relevant branch; or a three-year diploma in that branch together with two years of working experience. A great deal of material writes this simply as "degree or diploma" and stops, and that is where the confusion begins — because the half that gets left out is exactly the half that decides whether a diploma holder can apply this year or in two years.
- This is an examination, not a post — and here that means one recruitment leads to appointment in several organisations and several kinds of post. The Border Roads Organisation builds roads in difficult border areas; the Central Water Commission works on rivers, dams and water resources; the Central Public Works Department builds and maintains government buildings. The nature of the work and the place of posting differ greatly between them, so it is worth knowing what each does before filling the preferences.
- Age is not one number either. The upper limit is 30 for most organisations but 32 for some — the Central Water Commission among them. That difference appears in the same table in the notice as the qualification, so read the two together. The organisation you are eligible for and the age limit that applies to you are found on the same row.
- Selection is by computer-based papers covering general intelligence and reasoning, general awareness, and the engineering subject of your branch. The branch paper is the subject you studied for three or four years, so much of the preparation is already done — what has to be added is practice in general awareness and reasoning. The detailed scheme of the papers and their weightings are given in the Commission's scheme of examination.

- One comparison that is useful on this portal:
Rajasthan's Assistant Engineer post requires a degree and its Main examination is conventional, including a compulsory Hindi paper; the state's Junior Engineer takes a diploma with no experience condition; and this central Junior Engineer takes a degree immediately and a diploma after two years of experience. The technical base of preparation for all three is the same, so it is practical to plan for them together. Note too that pay matrix level numbers do not mean the same thing in the state and at the Centre — central Level 6 is ₹35,400; compare the rupees, not the level numbers.

5 Where to study

GOVERNMENT INSTITUTES

- Government polytechnic colleges — the three-year diploma route, entered after Class 10 — In many districts of Rajasthan (<https://dte.rajasthan.gov.in/>)
- Rajasthan Technical University and the government engineering colleges affiliated to it — the degree route — Kota, and government engineering colleges across the state (<https://www.rtu.ac.in/>)
- MNIT Jaipur — B.Tech. in Civil, Electrical and Mechanical Engineering — Jaipur, Rajasthan (<https://mnit.ac.in/>)
- Board of Technical Education, Rajasthan — reached through the Directorate of Technical Education portal — Jodhpur, Rajasthan (<https://dte.rajasthan.gov.in/>)

ONLINE

- कर्मचारी चयन आयोग — विज्ञप्ति एवं संगठन-वार योग्यता तालिका — Qualification and age are both found in that one table (<https://ssc.gov.in/>)
- एस.एस.सी. — पिछले वर्षों के प्रश्न-पत्र (निःशुल्क) — The most reliable material for the branch papers (<https://ssc.gov.in/for-candidates/previous-year-question-paper>)
- एन.पी.टी.ई.एल. — अभियांत्रिकी के निःशुल्क पाठ्यक्रम, आई.आई.टी. के प्राध्यापकों द्वारा — Government of India (<https://nptel.ac.in/>)
- आर.एस.एस.बी. — पिछले प्रश्न-पत्र, उत्तर कुंजी व पाठ्यक्रम (निःशुल्क) — The Staff Selection Board's own site — the most reliable free preparation material there is (https://rsmssb.rajasthan.gov.in/show_archived?menuName=Xj4lCb9vGxpQnfls%2FxlZ2g%3D%3D)

- विभागीय सेवा नियम (कार्मिक विभाग) — पद की योग्यता व आयु मूल दस्तावेज़ में पढ़ें — The Department of Personnel publishes the service rules for every cadre. Read these before any coaching material — qualification, age and the method of recruitment are settled here and nowhere else. (<https://dop.rajasthan.gov.in/>)
- स्वयं (SWAYAM) — भारत सरकार के निःशुल्क ऑनलाइन कोर्स — Free (<https://swayam.gov.in/>)
- राष्ट्रीय डिजिटल पुस्तकालय (NDLI) — Free books and study material (<https://ndl.iitkgp.ac.in/>)
- एन.सी.ई.आर.टी. — निःशुल्क पाठ्यपुस्तकें — The foundation for general knowledge, maths and science (<https://ncert.nic.in/>)

FEES

The cost decision comes after Class 10 or 12, and there are two routes here whose prices differ greatly. A polytechnic diploma at a government institution is cheap and can be taken straight after Class 10, so it is practical for families for whom four years of degree fees are heavy. A B.Tech. at a government engineering college costs several times less than at a private one, with admission on JEE Main or REAP marks. One sequence makes the best financial sense: the diploma first, then attempts at state-level Junior Engineer posts and working experience with it, and a degree by lateral entry alongside — that way income continues, experience accumulates, and the degree gets finished. Note that this central recruitment asks diploma holders for two years of experience, so those two years are not wasted: they are exactly what satisfies the condition. Expensive coaching is not needed: the branch paper is the subject you already studied, IIT courses are free on NPTEL, and the Commission publishes past papers itself.

SCHOLARSHIPS

- Mukhyamantri Anuprati Coaching Yojana (free coaching, apply via SSO) (<https://sso.rajasthan.gov.in/signin>)
- Rajasthan Social Justice and Empowerment Dept scholarships (<https://sje.rajasthan.gov.in/>)
- National Scholarship Portal (NSP) (<https://scholarships.gov.in/>)
- Buddy4Study scholarship search (<https://www.buddy4study.com>)

6 What the work is like

WHERE YOU WORK

Sites and the divisional offices of the organisation — a Border Roads Organisation posting can be in difficult border areas, a Central Water Commission one on river and dam projects, a Central Public Works Department one on government buildings. The work is divided between the office and the site.

WORK CULTURE

The Junior Engineer post is where technical work and responsibility meet. Much of the day is spent on site — taking measurements, checking materials, watching progress — and the rest in the office over estimates, measurement books and records. There is constant dealing with contractors and workers, and that is where the real test lies: holding to the standard of quality while pressure to finish quickly comes from several directions. The signature you put in a measurement book is a certificate about public money and can come under audit years later, so clean records matter as much here as technical skill. The question of posting should be put honestly: in some organisations it is in remote and difficult areas where the climate is hard and keeping family with you may not be easy — in return the allowances there are higher. The reward is solid: the road, bridge or canal built under your supervision is visible on the ground and lasts for decades.

WHO HIRES

- Border Roads Organisation (BRO)
- The Central Water Commission and the Brahmaputra Board
- The Central Public Works Department (CPWD)
- The India Meteorological Department — Scientific Assistant posts, and the Junior Engineer posts in Telecom and Quality Surveying

DEMAND (2026)

The need for technical staff in the central government's construction and water-resource organisations is a standing one and this examination is held regularly. Three things should be known alongside. First, the number of vacancies depends on what the organisations ask for and varies greatly from cycle to cycle, so do not predict next year from this year's figures. Second, the two-year experience condition for diploma holders is a real barrier and narrows the competition to those who have worked — a disadvantage for those who want to sit the examination straight away, and an advantage for those who have the experience. Third, this is only one part of an engineering preparation: the same degree or diploma also works for the state's Junior and Assistant Engineer recruitments, for public undertakings, for GATE, and in the private sector. Preparing for this examination therefore does not narrow your options; the same technical base serves in several directions. One thing to be clear about — the "demand" described above counts posts, not your chance of getting one. Selection is by open competition and the number of applicants runs to many times the number of posts, so most candidates are not selected in any given recruitment. That is not an argument against this career; it is an argument against making it your only plan. Keep studying or building a skill alongside your preparation, so that the year is not lost whichever way the result goes.

7 Career growth

- 1 Junior Engineer — the entry post, central Pay Matrix Level 6 (basic ₹35,400)
- 2 Assistant Engineer / Executive Engineer — by departmental promotion, under the organisation's cadre rules
- 3 Superintending Engineer — supervision at circle level
- 4 Chief Engineer — the top of the organisation's engineering wing

EARNINGS

Starting	केंद्रीय पे मैट्रिक्स लेवल 6 — मूल वेतन ₹35,400
Mid level	₹55,000 – ₹75,000 (भत्तों सहित, कुछ वर्षों की सेवा के बाद)
Senior level	₹90,000 से अधिक (भत्तों सहित, पदोन्नति के बाद)

The starting figure is the first cell of Level 6 of the central pay matrix, taken from the Commission's own pay-scale list. It is basic pay; dearness allowance, house rent allowance and transport allowance are added on top, and in remote postings the special allowances are considerably higher — so the amount in hand sits well above the basic. It is worth noting that this is a distinctly higher level than the Class 10 and Class 12 central recruitments elsewhere on this portal, and the reason is precisely that it asks for a technical qualification. One caution: pay matrix level numbers do not mean the same thing in the state and at the Centre — central Level 6 is ₹35,400, while the numbers in the Rajasthan matrix carry different values. Compare the rupees, not the level numbers. The mid-level and senior figures are approximate and are not confirmed from any official pay statement; read them as a direction, not a promise. The starting figure is BASIC PAY, so that it can be compared directly against other careers. Dearness allowance (60% of basic since 1 January 2026) and house rent allowance are added on top of it, so take-home pay is appreciably higher. The mid-level and senior figures are approximate monthly income including allowances, not basic pay. Note — in Rajasthan a direct recruit is a probationer-trainee for the first 2 years and is paid a fixed remuneration, not the pay scale; dearness allowance and house rent allowance are not payable in those two years (Rajasthan Service Rules, rule 7(30A)). The full pay scale applies once probation is completed. The figures above rest on the Rajasthan 7th pay matrix, which is what applies as of 17 August 2026. The Terms of Reference of the 8th Central Pay Commission were approved on 28 October 2025 and it must report within 18 months of its constitution. State governments normally adopt a Central Pay Commission with modifications, and later than the Centre does — so Rajasthan pay will be revised too, though by how much and when is not yet settled.

8 The good parts · The challenges

The good parts

- A direct return on a technical qualification — a pay level well above the Class 10 and 12 central recruitments
- The door is open to diploma holders too, though with an experience condition
- The work is visible on the ground and lasts for decades
- The same qualification also works for state recruitments, public undertakings, GATE and the private sector

The challenges

- A two-year experience condition on the diploma route that degree holders do not face
- The age limit varies by organisation, so assuming one figure is risky
- In some organisations the posting is in remote and difficult areas
- Pressure from contractors and deadlines, and a constant test of holding to quality

9 Sources & further reading

1. Staff Selection Commission — official website — <https://ssc.gov.in/>
2. SSC — Scheme of Examination — <https://ssc.gov.in/for-candidates/scheme-of-examination>
3. SSC — Previous year question papers — <https://ssc.gov.in/for-candidates/previous-year-question-paper>
4. Directorate of Technical Education, Rajasthan — the polytechnic diploma — <https://dte.rajasthan.gov.in/>
5. Rajasthan Staff Selection Board (official) — <https://rssb.rajasthan.gov.in/>
6. Department of Personnel, Rajasthan — service rules — <https://dop.rajasthan.gov.in/>
7. 8th Central Pay Commission — Cabinet approval of the Terms of Reference (PIB, 28 October 2025) — <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2183289>



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