



INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN  
AND MANUFACTURING, KURNOOL

**RECRUITMENT OF JUNIOR ENGINEER (CIVIL)**

(Advt. No. IIITDM/Advt./2019-20/7, dated 22.11.2019)

**PROVISIONAL LIST OF SHORTLISTED CANDIDATES**  
**APPLICATION NUMBERS**

1903JEC0001	1903JEC0044	1903JEC0089	1903JEC0120
1903JEC0002	1903JEC0046	1903JEC0090	1903JEC0123
1903JEC0003	1903JEC0047	1903JEC0091	1903JEC0124
1903JEC0004	1903JEC0048	1903JEC0094	1903JEC0125
1903JEC0005	1903JEC0060	1903JEC0095	1903JEC0126
1903JEC0012	1903JEC0062	1903JEC0098	1903JEC0129
1903JEC0018	1903JEC0064	1903JEC0099	1903JEC0130
1903JEC0020	1903JEC0065	1903JEC0100	1903JEC0132
1903JEC0024	1903JEC0066	1903JEC0103	1903JEC0135
1903JEC0026	1903JEC0067	1903JEC0104	1903JEC0138
1903JEC0029	1903JEC0069	1903JEC0108	1903JEC0139
1903JEC0035	1903JEC0071	1903JEC0111	1903JEC0140
1903JEC0036	1903JEC0082	1903JEC0115	1903JEC0141
1903JEC0037	1903JEC0084	1903JEC0116	1903JEC0143
1903JEC0040	1903JEC0085	1903JEC0117	1903JEC0149
1903JEC0043	1903JEC0086	1903JEC0119	

## **SCHEDULE FOR REPORTING, VERIFICATION & WRITTEN TEST**

<b>Level of Exam</b>	<b>Date, Day and Time</b>	<b>Remarks</b>
<b>Level 1</b>	7 <sup>th</sup> March 2020 (Saturday) 08:00 AM	Reporting and Occupying the Allotted Room
	7 <sup>th</sup> March 2020 (Saturday) 09:00 AM to 10:00 AM	Verification of Original Certificates along with Identity Proof
	7 <sup>th</sup> March 2020 (Saturday) 10:00 AM to 12:00 Noon	Written Test
<b>Level 2</b>	8 <sup>th</sup> March 2020 (Sunday) 10:00 AM to 12:00 Noon	Level 2 Written test and Level 3 Skill test Only for candidates qualified in Level 1
<b>Level 3</b>	8 <sup>th</sup> March 2020 (Sunday) 02:00 PM onwards	

### **Scheme of Examination**

#### **Levels of Exams:**

##### **Level 1:**

All the shortlisted candidates shall be called for the Aptitude Test carrying maximum of 100 Marks (Objective type). Maximum duration of exam is 2 hours.

##### **Level 2:**

It is the subject knowledge Test designed to test the candidate's suitability in the concerned subject. The questions will be objective/descriptive type carrying maximum of 100 marks. Maximum duration of exam is 2 hours.

##### **Level 3:**

It is the skill Test based on the Level-2 Syllabus carrying maximum of 100 marks.

### **Weightage of Exams**

##### **Level 1:**

Candidates securing the minimum qualifying marks shall be shortlisted for further evaluation process scheduled on the next day. In case of SC/ST candidates, the minimum qualifying marks is relaxable at the discretion of the competent authority. The

marks secured in the screening test shall not be taken into account for preparation of final selection list.

### **Level 2 & Level 3:**

Level 2 and Level 3 are of qualifying nature and merit list will be prepared based on the following allocation of weightage.

**Level 2: 60% and Level 3: 40%**

*\*\* In case of tie, suitable criteria decided by duly constituted committee will be followed.*

### **Note:**

Success in the examination confers no right of appointment.

## **Syllabus of Examination**

### **Level 1:**

**Aptitude:** Averages, Number Systems, Profit and Loss, Time and Work, Problems on Trains, Compound Interest, Decimal Fractions, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Boats and Streams, Probability, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Partnership, Clock, Simplifications, Volume and Surface, Problems on H.C.F And L.C.M, Logarithm, Chain Rule, Pipes and Cistern, Odd Man Out and Series, Height and Distance.

**Reasoning:** Number Series Compilation, Missing Number Finding, Continuous Pattern Series, Direction Sense Test, Puzzle, Verbal Classification, Matching Definitions, Logical Deduction, Series Compilations, Classification, Missing Character Finding, Odd Man Out, Blood Relations, Analogy, Coding And Decoding, Truth Verification of The Statement, Syllogisms, Analogies, Verbal Reasoning, Statement And Conclusions, Letter And Symbol Series, Logical Problems, Logical Sequence Of Words, Arithmetic Reasoning, Data Sufficiency and Numerical Ability.

**General English:** Antonyms, Synonyms, Spelling Check, Change of Voice, Spotting Errors, Sentence Improvement, One Word Substitute, Selecting Words, Sentence Corrections, Idioms and Phrases, Communication Skills, Common Error Detection, Sentence Compilation, Ordering of Words, Ordering of Sentences, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech.

**Data Interpretation:** Pie Chart, Bar Chart, Line Chart, Table Chart and their interpretations.

**General Knowledge:** Indian History, Indian Economy, Indian Culture, Environmental Science, Awards And Honors, Famous Places In India, World Organization, Sports, Books And Authors, Famous Personalities, Days And Years, World Geography, Basic General Knowledge, Physics, Biology, Indian Politics, Indian Geography, General Science, Chemistry, Technology, Inventions, Current Affairs.

**Computer Fundamentals:** Components of computer, Input and output devices, Operating Systems, Word processing software, data representations and conversions.

## **Level 2:**

**Building Materials :** Physical and Chemical properties, classification, standard tests, uses and manufacture/quarrying of materials e.g. building stones, silicate based materials, cement (Portland), asbestos products, timber and wood based products, laminates, bituminous materials, paints, varnishes.

**Estimating, Costing and Valuation:** estimate, glossary of technical terms, analysis of rates, methods and unit of measurement, Items of work – earthwork, Brick work (Modular & Traditional bricks), RCC work, Shuttering, Timber work, Painting, Flooring, Plastering. Boundary wall, Brick building, Water Tank, Septic tank, Bar bending schedule, Centre line method, Mid-section formula, Trapezoidal formula, Simpson's rule. Cost estimate of Septic tank, flexible pavements, Tube well, isolates and combined footings, Steel Truss, Piles and pile-caps. Valuation – Value and cost, scrap value, salvage value, assessed value, sinking fund, depreciation and obsolescence, methods of valuation.

**Surveying :** Principles of surveying, measurement of distance, chain surveying, working of prismatic compass, compass traversing, bearings, local attraction, plane table surveying, theodolite traversing, adjustment of theodolite, Leveling, Definition of terms used in leveling, contouring, curvature and refraction corrections, temporary and permanent adjustments of dumpy level, methods of contouring, uses of contour map, tachometric survey, curve setting, earth work calculation, advanced surveying equipment.

**Soil Mechanics :** Origin of soil, phase diagram, Definitions-void ratio, porosity, degree of saturation, water content, specific gravity of soil grains, unit weights, density index and interrelationship of different parameters, Grain size distribution curves and their uses. Index properties of soils, Atterberg's limits, IS1 soil classification and plasticity chart. Permeability of soil, coefficient of permeability, determination of coefficient of permeability, Unconfined and confined aquifers, effective stress, quick sand, consolidation of soils, Principles of consolidation, degree of consolidation, pre-consolidation pressure, normally consolidated soil, e-log p curve, computation of ultimate settlement. Shear strength of soils, direct shear test, Vane shear test, triaxial test. Soil compaction, Laboratory compaction test, Maximum dry density and optimum moisture content, earth pressure theories, active and passive earth pressures, Bearing capacity of soils, plate load test, standard penetration test.

**Hydraulics :** Fluid properties, hydrostatics, measurements of flow, Bernoulli's theorem and its application, flow through pipes, flow in open channels, weirs, flumes, spillways, pumps and turbines.

**Environmental Engineering:** Quality of water, source of water supply, purification of water, distribution of water, need of sanitation, sewerage systems, circular sewer, oval sewer, sewer

appurtenances, sewage treatments. Surface water drainage. Solid waste management – types, effects, engineered management system. Air pollution – pollutants, causes, effects, control. Noise pollution – cause, health effects, control.

### **Structural Engineering**

**Theory of structures:** Elasticity constants, types of beams – determinate and indeterminate, bending moment and shear force diagrams of simply supported, cantilever and over hanging beams. Moment of area and moment of inertia for rectangular & circular sections, bending moment and shear stress for tee, channel and compound sections, chimneys, dams and retaining walls, eccentric loads, slope deflection of simply supported and cantilever beams, critical load and columns, Torsion of circular section.

**Concrete Technology:** Properties, Advantages and uses of concrete, cement aggregates, importance of water quality, water cement ratio, workability, mix design, storage, batching, mixing, placement, compaction, finishing and curing of concrete, quality control of concrete, hot weather and cold weather concreting, repair and maintenance of concrete structures.

**RCC Design:** RCC beams-flexural strength, shear strength, bond strength, design of singly reinforced and double reinforced beams, cantilever beams. T-beams, lintels. One way and two way slabs, isolated footings. Reinforced brick works, columns, staircases, retaining wall, water tanks (RCC design questions may be based on both Limit State and Working Stress methods).

**Steel Design:** Steel design and construction of steel columns, beams roof trusses plate girders.

### **Level 3:**

Practical/Skill test based on Level-2 topics

*\* All shortlisted candidates will be received communication to their registered e-mail shortly with regard to admit card and other instructions, if any.*

*\* Queries will be answered only through e-mail ([recruitment@iiitk.ac.in](mailto:recruitment@iiitk.ac.in)).*

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