



राष्ट्रीय प्रौद्योगिकी संस्थान जमशेदपुर  
NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR

(An Institution of National Importance under MHRD, Government of India)

**Recruitment for Non-Teaching Positions in Staff Cadre**

[Advertisement No. NITJSR/ESS/CD/2019-20/693, dated August 30, 2019]

**Selection Process for Recruitment of  
SENIOR TECHNICIAN**

Selection Process for the post of Senior Technician will consist of three stages as detailed below:-

<b>Stage-I</b>	Multiple Choice Based Screening Test <i>[For screening of candidates for Stage-II (Skill Test)]</i>
<b>Stage-II</b>	Skill Test <i>[Qualifying in nature. Only for those who are successful after the Stage-I (Screening Test)]</i>
<b>Stage-III</b>	Multiple Choice Based Main Test <i>[Only for those who qualify the Stage-II (Skill Test)]</i>

**Syllabus and Scheme of Examination**

**Stage-I** [Multiple choice based screening test]

**Syllabus:-** General English, General Hindi, Quantitative Aptitude, Verbal and Non Verbal Reasoning, General Studies & Current Affairs, Application of Computer Software like MS- Word, Excel, Power Point, Tally etc. used in day-to-day office work, Internet, e-mail and various online tools used in day-to-day office work, central government rules, office procedures.

**Stage-II** [Skill Test]

# Only those who are screened in and short-listed after the Screening Test [Stage-I], will be allowed to appear in the Skill Test.

**Syllabus:** - At Annexure – I

**Stage-III** [Multiple choice based screening test]

**Syllabus:** - At Annexure – II

**Final Selection**

Final merit list will be prepared as follows:- Stage- I (30%) + Stage-III (70%)

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### **Annexure – I (Syllabus for stage- II)**

#### **Department of Civil Engineering**

- # Domain practical knowledge in the relevant area specific to the post related to the civil Engineering. department applied for from the trade/branch relating to instrumentation/lab systems/ practical/ experimental/ analytical/ model/ prototype development etc.
- # Basic civil Engineering, civil Engineering drawing, instruments of structural Engineering and concrete technology laboratory, soil mechanics and foundation Engineering laboratory, transportation Engineering laboratory, environmental Engineering laboratory, water resource Engineering laboratory and surveying instruments.

#### **Department of Chemistry**

- # Domain practical knowledge about different UG and PG labs UG laboratory of Chemistry.
- # Trouble shootings of various laboratory equipment in Chemistry Department.

#### **Department of Computer Science Engineering / Department of Computer Applications / Department of Mathematics**

- # MS-office (MS Word, MS PowerPoint, MS Excel).
- # Fundamentals of C Programming.
- # Practical on PC Hardware Components: Printers, Scanners and Projectors, etc.
- # Knowledge of Data Sharing, Printer Sharing.
- # Knowledge of Installing, Configuring Windows Server, DNS, ADS, DHCP, Networking fundamentals.
- # Knowledge of computer hardware and software troubleshooting.

#### **Department of Electronics & Communication Engineering**

- # Practical knowledge in the Electronics and Communication Engineering area related to Basic Electronics, Analog and Digital Electronics, Microprocessor, DSP, VLSI, Embedded Systems, IoT, Computer Networking, Software installation etc and assembling of electronics models /projects.
- # Trouble-shooting, repair and maintenance of experimental trainer kits/modules, devices, Instruments of various labs of Electronics and Communication Engineering.

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**Department of Electrical Engineering**

- # Domain practical knowledge about different labs such as Electrical Machines Lab, Instrumentation Lab, Power System Lab, Control Systems Lab, Power Electronics Lab, Networks Lab etc.
- # Basic Electrical Engineering, Electrical Circuits, Electrical Measuring Instruments, Electrical Machines.
- # Trouble shootings of various lab equipment in Electrical Engineering. Department.

**Department of Mechanical Engineering**

- # Practical knowledge in Handling, operation and maintenance of equipment(s) related to Mechanical Engineering Department/ Applied Mechanics laboratory.

**Department of Metallurgical & Materials Engineering**

- # Practical knowledge in Handling, operation and maintenance of equipment(s) for Materials Testing, Metal Forming operations, Metallography, Foundry.

**Department of Production and Industrial Engineering**

- # Domain practical knowledge in relevant area, specific to laboratory equipment and workshop equipment generally available in the production and industrial engineering department.

**Department of Physics**

- # Domain practical knowledge about different UG and PG labs UG laboratory of Physics.
- # Trouble shootings of various lab equipment in Physics Department.

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### **Annexure – II (Syllabus for stage- III)**

**NOTE:** Questions will be based on ITI level curriculum.

#### **Department of Civil Engineering.**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Basic questions on different areas of civil Engineering.
- # Trouble shooting of all instruments of civil Engineering laboratories.

#### **Department of Chemistry**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Application of Computer Software like MS-Word, Excel, Power Point, Tally etc. used in day-to-day office work.
- # Internet, e-mail and various online tools used in day-to-day office work.
- # Trouble shootings of various lab equipment in Chemistry Department.
- # Questions will be of Senior Secondary (Science) level.

#### **Department of Computer Science Engineering / Department of Computer Applications / Department of Mathematics**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Fundamentals of C Programming, Fundamentals of Computer, SMPS, Assembling and disassembling PCs, BIOS / CMOS Setup, Installation of Drivers and Software, CPU, Mother Board, RAM / ROM, Hard Disk Drive, Optical Drive, Keyboard, Mouse, Monitor, Printer, Scanner, Projector, Virus /Malwares, Networking, Internet, UPS, MS-Office (MS Word, MS PowerPoint, MS Excel), Knowledge of computer hardware and software troubleshooting.
- # Trouble shooting of all Equipment of Computer Laboratories.

#### **Department of Electronics & Communication Engineering**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Basic Questions on different areas of Electronics and Communication Engineering.
- # Trouble-shooting and maintenance of various laboratory/instruments/devices and equipment related to area of Electronics and Communication Engineering.

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### **Department of Electrical Engineering.**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Basic concepts related to different areas of Electrical Engineering such as Power System, Power Electronics, Control Engineering, Electrical Machines, Measurement and Instrumentation, Networks and Systems.
- # Application of Computer Software like MS-Word, Excel, Power Point, Tally etc. used in day-to-day office work.
- # Internet, e-mail and various online tools used in day-to-day office work.
- # Trouble shootings of various lab equipment in Electrical Engineering. Department.

### **Department of Mechanical Engineering**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Basic questions related to various laboratory equipment in the Mechanical Engineering Department & Applied Mechanics laboratory, Housekeeping and documentation.
- # Troubleshooting all equipment/instrument used on various laboratories of Mechanical Engineering.

### **Department of Metallurgical & Materials Engineering**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Materials Testing (Knowledge of Tensile, Hardness, Impact, wear, compression testing machines, Hydraulic machines etc.) and Metal Forming Technologies, Knowledge of various types of Furnaces, Vacuum system, Various machining operations, Foundry equipment, Welding and joining, Physical Metallurgy (Polishing machines and other processes), Housekeeping and documentation, Safe handling and disposal of chemical and other solvents.
- # Troubleshooting all equipment/instrument used on various laboratories of Metallurgical and Materials Engineering.

### **Department of Production and Industrial Engineering**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Basic Questions on different areas of Production and Industrial Engineering.
- # Trouble shooting of all instruments of Production and Industrial Engineering Laboratories.

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**Department of Physics**

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Application of Computer Software like MS-Word, Excel, Power Point, Tally etc. used in day-to-day office work.
- # Internet, e-mail and various online tools used in day-to-day office work.
- # Trouble shootings of various lab equipment in Physics Department.
- # Questions will be of Senior Secondary (Science) level.

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