



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
TECHNICAL ASSISTANT**

Selection Process for the post of Technical Assistant will consist of three stages as detailed below:-

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

Note: Any guidelines/ instructions received from the MHRD till the date of completion of Selection Process may be made applicable.



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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

- # Programming skills in C/C++/JAVA etc.
- # Knowledge of HTML, Java script, PHP
- # 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.
- # Basic networking commands in DNS, DHCP, VLAN, TFTP.
- # MS office test.
- # Knowledge of computer hardware and software troubleshooting.

Department of Electronics & Communication Engineering

- # Practical / Experimental / Analytical / Prototype Model development domain knowledge in the relevant area of Electronics and Communication Engineering such as Basic Electronics, Analog and Digital Electronics, Microprocessor and Microcontroller, DSP, Micro Electronics, VLSI, Embedded Systems, IoT, RF and Microwave, Computer Networking, PCB and Electronics Workshop etc.
- # Trouble-shooting, repair, maintenance of trainer kits/modules, calibration of devices/instruments and Installation of Software related to various laboratory 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, Control Systems, Transmission and Distribution, Utilization of Electrical Power, Electrical Design, Drawing and Estimation.
- # 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

- # Theoretical and experimental knowledge in relevant areas such as Physical Metallurgy and Metallography, Materials Testing, Powder Metallurgy, Materials Characterization, Process Metallurgy (Thermodynamics and kinetics, Extractive metallurgy), Materials Degradation etc.
- # Relevant knowledge in Handling, Operation and Maintenance of instruments like X-ray Diffractometer, Optical Microscope, Electron Microscope, Melting and Casting Units, Furnaces, Spectroscopy, Electrochemical cells, wear test etc.
- # Calibration of various lab Instruments.
- # Working knowledge of basics of operating system and Microsoft office or similar software.

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 Diploma 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 BSc level

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

- # General Science (such as Physics, Chemistry, Mathematics & Environment).
- # Programming and Data structure, DBMS, Operating System, 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, Web Technology, UPS.
- # 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 of various lab., Instruments/Equipment related to Electronics and Communication Engineering.

Department of Electrical Engineering

- # General Science (such as Physics, Chemistry, Mathematics & Environment).

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- # 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).
- # Physical Metallurgy and Metallography, Materials Testing (Tensile, Hardness, Impact, wear, compression etc.) and Metal forming Technology (Rolling, Forging Extrusion, wire drawing etc.), Powder Metallurgy, Materials Characterization, Process Metallurgy (Thermodynamics and kinetics, Extractive metallurgy), Materials Degradation.
- # 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

Department of Physics

- # General Science (such as Physics, Chemistry, Mathematics & Environment).

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- # 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 BSc level

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