

Annexure-ISYLLABUS AND SCHEME OF EXAMINATION

The “Technical Assistant Recruitment Examination, 2026” shall be conducted in 03 (three) stages i.e. Written Test, Trade/ Skill Test/ Work Proficiency Test and Interview. The Screening/Preliminary Test shall be conducted if the number of applicants is on the higher side. The Scheme of Examination shall be as follows:-

Stage of Examination		Maximum Marks	Minimum Qualifying Marks	Duration
[A] Screening/ Preliminary Test (MCQ based)  [It shall be conducted if the number of applicants is on the higher side]	General Awareness	15	---	---
	Reasoning and Quantitative Aptitude	10	---	---
	General English	15	---	---
	Computer Applications	60	---	---
		<b>100</b>	<b>40</b>	<b>2 Hours</b>
[B] Written Test (MCQ based)		200	80	2 Hours
[C] Trade/Skill Test/Work Proficiency Test		100	40	1 Hour
[D] Interview		30	9	--
<b>Total marks for preparation of final merit list ([B]+[C]+[D])</b>			<b>330</b>	

SCREENING/PRELIMINARY TEST

The Preliminary Test shall be Multiple Choice Question based and it shall be conducted if the number of applicants is on higher side. It shall be held for the purpose of shortlisting of candidates for the next stage of examination i.e. Written Test and **the marks obtained by the candidates in this test shall not be considered for preparation of merit list.** The Preliminary Test shall be of total 100 marks and the minimum qualifying marks shall be 40. There shall be negative marking for incorrect answers in the preliminary test. For every correct answer, one (1) mark will be awarded and for every incorrect answer, one-fourth (1/4) will be deducted as negative marking. **Ten times candidates** of the total number of advertised vacancies (following the model roster point and the reservation policy adopted in the High Court) will be shortlisted for appearing at next stage i.e. **Written Test**. However, the candidates who have obtained **marks equal to** the marks obtained by the **last shortlisted candidate** of their

respective categories, **will also be shortlisted** for the next stage even if the total number of candidates called for Written Test exceeds the ten times criteria.

The Syllabus of Preliminary Test shall be as follows:-

- (i) **General Awareness:-** Questions in this component will be aimed at testing the candidates' general awareness. Questions will be designed to test knowledge of current events and of such matters of every day observations and experience in their scientific aspect as may be expected from any educated person. The test will include questions relating to-
- India and its neighbouring countries especially pertaining to History, Culture, Geography, Polity, Economy, General Policy and Scientific Research.
  - Current Affairs, Books and Authors, Sports, Important Schemes, Important Days, People in News, current events of national importance, National/ International Awards etc.
  - Awareness towards General Science and Environment applicable in day to day life and awareness of knowledge of social importance.
  - Bihar especially pertaining to its History, Culture, Geography, Economy, Polity and general awareness.
- (ii) **Reasoning and Quantitative Aptitude:-** It would include questions of both verbal and non-verbal type. This component may include questions on Analogy, Similarity and Difference, Space Visualization, Space Orientation, Problem Solving, Analysis, Visual Memory, Discrimination, Observation, Relationship Concept, Arithmetical Reasoning, Verbal and Figural Classification, Arithmetical Number Series, Non Verbal Series, Coding and decoding, statement conclusion, syllogistic reasoning etc.
- In this section, questions will also be designed to test the ability of appropriate use of numbers and number sense of the candidates. The scope of the test will be Number System, Computation of Whole Numbers, Decimals, Fractions, relationship between numbers, Basic arithmetic operations, Percentage, Ratio and Proportion, Average, Interest, Profit and Loss, Time and Distance, Time and Work, Height and Distance, Mensuration etc.
- (iii) **General English:-** The questions will be designed to test the candidates' understanding of the languages and literature, correct use of words, phrases and idioms and ability to write the languages correctly, precisely and effectively. The questions will ordinarily cover vocabulary, grammar, sentence structure, synonyms, antonyms and their correct usage, spot the error, fill in the blanks, spellings/ detecting mis-spelt words, idioms & phrases, one word substitution, improvement of sentences, active/ passive voice of verbs, conversion into direct/ indirect narration, shuffling of sentence parts, shuffling of sentences in a passage, cloze passage, comprehension passage etc.
- (iv) **Computer Applications:** Refer to the detailed syllabus at **Annexure-II**.

## WRITTEN TEST

The Written Test shall be Multiple Choice Question based intended to test the domain-specific theoretical knowledge of the candidates. The Test shall be of total 200 marks and the minimum qualifying marks shall be 80. Following Written Test, **six times** candidates of the total number of advertised vacancies (following the model roster point and the reservation policy adopted in the High Court) will be shortlisted for the next stage i.e. **Trade/ Skill Test/ Work Proficiency Test**. However, all the candidates who have obtained **marks equal to** the marks obtained by the **last shortlisted candidate** of their respective categories **will also be shortlisted** for the next stage even if the total number of candidates called for Trade/Skill Test/Work Proficiency test exceeds the six times criteria.

The detailed syllabus for the Written Test is enclosed as **Annexure-II**.

**Note:- Except the questions of General English in Screening/Preliminary Test, the questions of remaining sections in Screening/Preliminary Test and questions in Written Test shall be both in English and Hindi languages. However, the English version shall always prevail in case of any discrepancy or inconsistency between English version and its Hindi Translation.**

## TRADE/ SKILL TEST/ WORK PROFICIENCY TEST

The test shall assess practical knowledge of the candidates. Following Trade/Skill Test/Work Proficiency test, **three times** candidates of the total number of advertised vacancies (following the model roster point and the reservation policy adopted in the High Court) will be shortlisted for the next stage i.e. **Interview**. However, all the candidates who have obtained **marks equal to** the marks obtained by the **last shortlisted candidate** of their respective categories **will also be shortlisted** for the next stage even if the total number of candidates called for Interview exceeds the three times criteria.

## INTERVIEW

The interview shall be of 30 marks and the minimum qualifying marks shall be 09.

It shall be mandatory for the candidates to appear and secure the minimum qualifying marks in all stages of the examination i.e. Written Test, Trade/ Skill Test/ Work Proficiency Test and Interview failing which they shall not be considered for preparation of final merit list.

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**Annexure-II****SYLLABUS**

| Sl. No. | Subject                                | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.      | Programming Fundamentals               | Basic concepts of programming, algorithm development, introduction to the programming environment, introduction to C programming, variables, data types, and operators, control structures: if, else, switch, functions and parameter passing, arrays and strings, pointers and dynamic memory allocation, file I/O.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2.      | Data Structure                         | Introduction to arrays and strings, array manipulation and operations, string manipulation and algorithms, singly linked lists, doubly linked lists, circular linked lists, linked list operations and applications. Stack implementation and applications, queue, deque and priority queue.<br>Binary trees and binary search trees, tree traversal algorithms, balanced trees: AVL trees, red-black trees, graph representation: adjacency matrix, adjacency list, graph traversal algorithms: depth-first search (DFS), breadth-first search (BFS), minimum spanning tree algorithms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3.      | Web technology & Virtualization        | Overview of the World Wide Web and Internet, introduction to cloud computing concepts and models, benefits and challenges of cloud computing, HTML5: structure and semantics, CSS3: styling and layout, JavaScript: programming fundamentals and DOM manipulation, responsive web design.<br>Virtualization-Hypervisor and containers, life cycle of VM and administration. Virtualization platforms ESXi, Hyper-V, KVM, etc. Thorough familiarity of the Linux OS is expected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4.      | Computer Networks                      | Signals and transmission media, digital and analog transmission, multiplexing techniques, transmission errors and error detection, modulation and demodulation, Network hardware devices (Hub, Switch, Modem, Router, Bridge, Repeaters, Firewall). Guided transmission media: twisted pair, Coaxial cable, optical fiber.<br>Logical addressing, IPv4 addressing, subnetting, super netting, IPv6 addressing, routing fundamentals, routing algorithms (Distance Vector, Link State), IP Routing (RIP, OSPF, BGP), Internet Control Message Protocol (ICMP), multicast routing, Quality of Service (QoS) and traffic management.<br>Domain Name System (DNS), File Transfer Protocol (FTP), Hypertext Transfer Protocol (HTTP), Simple Mail Transfer Protocol (SMTP), Post Office Protocol (POP), Internet Message Access Protocol (IMAP), Telnet, Dynamic Host Configuration Protocol (DHCP), Simple Network Management Protocols (SNMP)<br>System maintenance and troubleshooting Windows and Linux OS installation procedures - Dual Boot Reserving space for User System while installing OS<br>Trouble shooting issues related to OS. device drivers - Installing packages through command line/GUI, Shell Scripting. |
| 5.      | Computer Organization and Architecture | Overview of computer architecture and organization, binary, decimal, octal, and hexadecimal number systems, representation of integers, floating-point numbers, and characters, two's complement representation, Binary Coded Decimal (BCD) representation, logic gates and their functions, combinational and sequential circuits, minimization techniques: Karnaugh maps.<br>CPU Architecture: Control Unit, Arithmetic Logic Unit (ALU), registers, Instruction Set Architecture (ISA), Instruction Execution Cycle (IEC), addressing modes, memory technologies: RAM, ROM, cache memory, virtual memory, memory organization and addressing, cache memory: organization, mapping, replacement policies, memory interfacing and I/O operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| 6. | Hardware Devices<br>Installation and<br>Database | <p>Importance of Installation and Configuration, Basic Troubleshooting Techniques, Installation and Configuration of PCs, Laptops, Mobile Devices, Printers, and Scanners, Management of Various I/O Devices and Peripherals.</p> <p>Installation &amp; Configuration of OS (Windows/Ubuntu) upgrade, ROM/RAM, BIOS, Bootstrap Memory, Firmware Hard Disks, Assembling of PC, Installation of Systems and troubleshooting, BIOS settings, Installation and testing of a printer. Installation and Maintenance of UPS Systems. Installation and maintenance of various networking devices like routers and switches, in and out structured cabling, Installation of Firewalls and Connectivity of LAN connectivity of Wireless network devices, Configuring and sharing internet in PCs and other devices.</p> <p>Overview of Databases and Database Management Systems (DBMS), Importance of Databases in Modern Computing, Databases E-R Model, Relational Model: Relational Algebra, Tuple Calculus, SQL, Integrity Constraints, Normal Forms. File Organization. Indexing: Band B-- Trees, Transactions and Concurrency Control. Types of Databases: Relational, NoSQL, Object-Oriented, etc., Relational Model Basics: Tables, Rows, Columns, Keys, Entity-Relationship (ER) Diagrams, normalization: First, Second, and Third Normal Forms, Basic SQL Queries: SELECT, INSERT, UPDATE, DELETE, Filtering Data: WHERE Clause, Sorting Data: ORDER BY Clause, joining Tables: INNER JOIN, LEFT JOIN, RIGHT JOIN.</p> |
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