राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली
NATIONAL INSTITUTE OF TECHNOLOGY DELHI
(शिक्षा मंत्रालय, भारत सरकार के अधीन एक स्वायत्त संस्थान)

(An autonomous Institute under the aegis of Ministry of Education (Shiksha Mantralaya), Govt. of India)
Plot No. FA7, Zone P1, GT Karnal Road, Delhi-110036, INDIA
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F. No: NITD/01/Admn/606/2025-26   Dated: 12.12.2025

Pattern of Examination (Written Test and Proficiency Test) and Evaluation Criteria for all the Advertised Non-Teaching Positions vide Advt. No.: 08/2025

A. PATTERN OF EXAMINATION AND EVALUATION CRITERIA OF WRITTEN EXAMINATION (PART A, PART B, AND PART C):

1. Pattern of Examination and evaluation Criteria (Part A, Part B, and Part C):
    a. The written examination will consist of one paper divided into three parts:

Part	Type	Content	No. of Questions	Marks
A	Objective Type	General Knowledge Test	20	20
B	Objective Type	Domain Knowledge Test	60	60
C	Descriptive Type	Assessment of Practical and Experimental Knowledge	5	20
			85	100

2. Cutt-off / Merit Criteria:
    i.   Cut-off / Merit will be drawn on the basis of marks obtained by candidates out of 100 marks in the written examination (Part A, Part B, and Part C).

    ii. Based on the merit as referred in Point 2 (i) above, candidates will be shortlisted in the ratio of 1:6 (i.e. a maximum Six candidates will be shortlisted for each advertised post), in order of merit, for each advertised post, subject to securing the following minimum qualifying marks in the written examination:
    a). UR / EWS: Minimum 60 marks out of 100 marks (60%)
    b). OBC: Minimum 55 marks out of 100 marks (55%)
    c). SC / ST / (PwD / PwBD): Minimum 50 marks out of 100 marks (50%)

3. Number of Questions and Marking Scheme:
    i.   Written Test – Part – A shall consist of 20 questions, carrying 01 mark each, and therefore this Part shall be of maximum 20 marks. The evaluation shall be carried out as follows:
    a). 01 (one) mark will be awarded for each correctly attempted question.
    b). 0.25 marks will be deducted as negative marking for each incorrectly attempted question.
    c). No marks shall be awarded for any question that remains unattempted or left unanswered.

    ii. Written Test – Part – B shall consist of 60 questions, carrying 01 mark each, and therefore this Part shall be of maximum 60 marks. The evaluation shall be carried out as follows:
    a). 01 (one) mark will be awarded for each correctly attempted question.
    b). 0.25 marks will be deducted as negative marking for each incorrectly attempted question.
    c). No marks shall be awarded for any question that remains unattempted or left unanswered.

iii. Written Test – Part – C shall consist of 05 questions, carrying 04 marks each, and therefore this Part shall be of maximum 20 marks.

    a). No negative marking will be applicable in Part C.

4. Timing allotment for the examination (Written Examination):
    i. The Written Test (comprising Part A, Part B, and Part C) shall be of 2 hours and 30 minutes (150 minutes) duration for all the positions.

5. In case of bunching / bracketing of candidates in the result of the Written Test, the merit shall be decided in the following order:
    i. Desirable Qualifications: Candidates who possess the desirable qualification(s) prescribed for the post shall be given preference.
    ii. Age Seniority: If the tie remains unresolved, the candidate senior in age shall be given preference.
    iii. Alphabetical Order of Name: If the tie still persists, preference shall be given to the candidate whose name comes first in alphabetical order.
    iv. Draw of Lots: If all the above criteria fail to break the tie, the merit order shall be decided through draw of lots.

B. **PATTERN AND EVALUATION CRITERIA OF PROFICIENCY TEST:**

1. Proficiency Test:
    i. Candidates shortlisted in the ratio of 1:6 for each advertised post, as per the criteria specified in Point 2 under (A), shall be called to appear for the Proficiency Test.

2. The Proficiency Test shall carry a total of 50 marks and will be qualifying in nature, with the following qualifying marks:
    i. UR / EWS: Minimum 27.5 marks out of 50 marks (55%).
    ii. OBC / SC / ST / (PwD / PwBD): Minimum 25 marks out of 50 marks (50%).

3. Timing allotment for the examination (Proficiency Test):
    i. The Proficiency Test shall be of 1 hour (60 minutes) duration for all the advertised posts.

Sd/-
(Prof. (Dr.) Hitesh Sharma)
Registrar, NIT Delhi

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Syllabus of the Written Test (Part A, Part B and Part C) and the Proficiency Test for the Non-Teaching Positions Advertised vide Advt. No.: 08/2025

TECHNICAL ASSISTANT (COMPUTER APPLICATIONS), PAY LEVEL – 06

Written Test – Part – A (Objective Type – General Knowledge Test)   20 Marks

i.   Maths & Numerical Ability: Average, Time and Work, Simple Interest, Compound Interest, Decimal Fractions, Problems on Numbers, Square Root and Cube Root, Time and Distance, Simplification, Numerical Computation etc.

ii. Logical Reasoning: Number Series Compilation, Missing Number Finding, Continuous Pattern Series, Matching Definitions, Missing Character Finding, Coding and Decoding, Logical Sequence of Words, Arithmetic Reasoning, Numerical Reasoning, Data Reasoning and Data Interpretation. etc.

iii. Language & Comprehension: Antonyms, Synonyms, Spelling Check, Common Error Detection, One word substitution, Grammatical error, Idioms and Phrases, Sentence Correction and Completion, Spotting Errors, Sentence Improvement, Sentence Formation, etc.

iv. General knowledge and Current Affairs: NEP 2020, Academic Bank of Credit, Indian Economy, Indian Polity, Indian Constitution, Indian Geography, Days and Years, Basic General Knowledge, Current Affairs, Important Government Schemes, etc.

v.   Computer Fundamentals, MS Word, MS Excel, MS Power Point, Internet, Email System, etc.

Written Test – Part – B (Objective Type – Domain Knowledge Test)   60 Marks

i.   Hardware - Hardware Devices and Troubleshooting, Components, tools and safety measures, Assembling a PC , Firmware upgrade, Dual BIOS & BIOS settings, Diagnose & Resolve issues related to a PC, Laptop features, Components, tools and safety measures, Diagnose & Resolve issues related to a laptop, upgrading a PC or Laptop, Smartphone features and Tools & Safety, Types of printers, Installing and testing a printer, Printer, Maintenance, Scanner Installation, Webcam Installation.

ii. Programming and Data Structure - C Language, Object oriented Programming, functions, data type, Recursion, Arrays, Stacks, Queues, Binary Search Trees, Sorting.

iii. Web Designing - HTML and CSS, SQL, JavaScript

iv. Operating system – Application & Troubleshooting, different OS and Compatibility, window and

Linux installation, Upgrading OS, Software Installation, Working on MS Word, Excel, MS PowerPoint, MS Office Troubleshooting, Different Browser setup, back up, format and restore OS, Open MPI Basics, Server OS (Window, Linux)

v. Database Management: Relational database, SQL Query

vi. Networking and Security - Basics of computer network, OSI Model, Transmission Media, Networking devices Network Topology, LAN Basics, IP Addressing, TCP/IP, Ethernet Advanced, Structured Cabling, Wireless networking, connecting a PC/ Laptop to Internet, installing a printer and sharing it in network, Joining a workgroup/ domain, File sharing and troubleshooting, Remote Access, Basics of Wi-Fi, Internet security, Server, HPC, Clustering server, Distributed Server, Cloud basics

Written Test – Part – C (Descriptive Test – Assessment of Practical and Experimental Knowledge) **20 Marks**

Candidates will be expected to explain the principles, operation, and applications of the following workshop instruments, tools, machines, and processes:

a) Assembling a Personal Computer (PC), including identification and integration of hardware components.

b) Installation of operating systems, basic BIOS configuration, and system troubleshooting techniques.

c) Installation, testing, and maintenance of peripheral devices such as printers and scanners.

d) Installation and setup of webcams; knowledge of making various types of network cables (e.g., straight-through, crossover, console cables).

e) Installation and preventive maintenance of Uninterruptible Power Supply (UPS) systems.

f) Installation, configuration, and maintenance of networking devices such as routers and switches.

g) Structured cabling techniques including layout planning and implementation.

h) Local Area Network (LAN) configuration and cable patching methodologies.

i) Installation of antivirus software, firewall configuration, LAN/WAN connectivity, and creation of Virtual Private Networks (VPNs).

j) Identification and resolution of hardware/software issues, common system errors, replacement of faulty hardware, and preventive system maintenance.

k) Basic understanding of OSI and TCP/IP protocol stacks, including IPv4 and IPv6 addressing schemes.

l) Installation and configuration of wireless network devices.

m) Fundamentals of server configuration, server clustering, and basics of distributed server architecture.

n) Debugging programs written in C, C++, and Python.

o) Installation and administration of relational database management systems such as SQL and Oracle.

p) Installation of various operating systems, including Windows and Linux variants.

q) Installation and usage of software development and networking tools such as Visual Studio, UML tools, and Cisco Packet Tracer.

r) Functional knowledge of MS Office suite – MS Word, MS Excel, and MS PowerPoint.

s) Configuration and sharing of internet connectivity among PCs and other networked devices.

t) Firewall configuration and implementation of access control lists.

u) Installation and configuration of wireless networks.

v) Webpage design using:

- HTML
- CSS
- JavaScript

w) File sharing techniques and troubleshooting, including:

- Remote access methods
- Basics of Wi-Fi networks
- Internet security principles

x) Database management principles, relational databases, and working knowledge of MySQL/SQL queries.

y) Basics of server operating systems, cloud computing fundamentals, and introductory knowledge of Open MPI.

z) Maintenance of consumable and non-consumable stock registers.

aa) Maintenance and proper use of laboratory log books for tracking equipment usage.

bb) Efficient storage and organization of various components in appropriate locations.

cc) Basic knowledge of repair and maintenance of laboratory equipment.

Proficiency Test (Skill Based Assessment of Practical and Experimental Knowledge) 50 Marks

i. HARDWARE

a) Assembling of PC

b) Installation of Systems and troubleshooting, BIOS settings,

c) Installation and testing of a printer, Printer Maintenance, Scanner Installation

d) Webcam Installation, Making various types of cables for networking

e) Installation and Maintenance of UPS Systems

f) Installation and maintenance of various networking devices like Router, Switches

g) Laying out Structured cabling

h) LAN configuration and Cable Patching

i) Installation of antivirus software, Firewalls and Connectivity of LAN & WAN, Creation of VPNs

j) Identifying hardware and software problems, common computer errors, resolving software issues, replacing hardware components, and preventive maintenance

k) Brief knowledge of OSI and TCP/IP protocol stacks, IPv4 and IPv6

l) Installation of Wireless network devices

m) Server Configuration, Clustering Servers, Distributed Server Configuration Basics.

ii. SOFTWARE

a) Debugging C/ C++/Python Programs

b) Installation and Administration of SQL & Oracle

c) Installation of various variants of Operating systems like Windows and Linux

d) Installation of Software like Visual Studio, UML, Cisco Packet tracer

e) Working of MS-Office components like Word, Excel & PowerPoint

f) Configuring and sharing internet in PCs and other devices

g) Configuring firewalls & Usage of access lists

h) Working with Wireless Networks (Installation & Configuration)

i) Designing webpages
   - HTML
   - CSS
   - Java Script

j) File sharing and troubleshooting
   - Remote Access
   - Basics of Wi-Fi
   - Internet security

k) Database Management: Relational Database, MySQL/SQL Query

l) Server OS, Cloud Computing Basics, Open MPI basics

iii. LABORATORY MAINTENANCE

a) Maintenance of consumable and non-consumable stock registers

b) Maintenance and usage of laboratory log books for using various equipment's.

c) Managing of storage of various components in relatable places.

d) Basic idea of repairing/ maintenance of laboratory equipment's.