

Non-Teaching Staff Recruitment

(Advertisement No. IITT/STAFFREC/01/2025 dated 14-07-2025)

Syllabus – JTS- Computer Science & Engineering

(Specialization: System Administration & Networking)

1. **Desktop, server, and peripherals:** Linux system administration, maintenance, and monitoring; Bash scripting; PowerShell scripting; Linux OS installation and configuration; and intermediate computer hardware knowledge.
2. **HPC:** HPC system management tools; job schedulers for HPC such as OpenPBS and Slurm; cluster hardware knowledge; familiarity with HPC storage and filesystems; familiarity with high-speed HPC networks such as InfiniBand; and basic knowledge of MPI and GPUs.
3. **Networks:** Network devices, DNS, DHCP, and VLAN; network management and debugging using SNMP; command-line scripting and editing with Bash and vim; basic network security knowledge; and Linux network management tools.
4. **System Administration & DevOps:** Virtualization basics, Docker & containerization, Git workflows, CI/CD pipelines, Monitoring (Prometheus/Grafana), basics of Ansible/Terraform
5. **Troubleshooting & Support:** Diagnosing OS/application errors, virus/malware removal, data backup procedures, basic helpdesk support.
6. Knowledge of AI tools for day-to-day work tasks.

Selection Criteria:

- **Level-I** : Objective Based Test with negative marking. The test covers technical questions (Level-I is a screening test to call a reasonable number of candidates for the Level-II & Level-III tests.)
- **Level-II** : Descriptive Test (Descriptive questions designed to assess the understanding and application of knowledge and skills from the topics covered in the syllabus)
- **Level-III** : Skill/Trade Test (Hands-on skill-based evaluation involving the practical usage of topics from the syllabus, with emphasis on command-line usage where applicable)
Examples: As applicable: Configuration of servers, network; development of web services; assembling and troubleshooting of computer hardware and AV systems, etc.

Note: All the tests will be conducted based on the above-mentioned syllabus. Equal weightage shall be given to Level-I and Level-II tests for the purpose of preparing the merit list. The Level-III test will be qualifying in nature (Pass/Fail).
