UNIVERSITY OF KASHMIR

NAAC ACCREDITED GRADE A++

UNIVERSITY CAMPUS, HAZRATBAL, SRINAGAR 190006, KASHMIR.

NOTICE

It is notified for the information of all the candidates who had applied for the post of **Senior Technical Assistant (Computer Science)** advertised vide Advertisement Notice No. 06 of 2026 dated: 28-03-2026 that the **Selection Criteria, Scheme and Syllabus** for the said post shall be as under:

Scheme & Selection Criteria

Selection Criteria	Maximum Marks
1. Objective Type Written Test (OMR based)	100 Marks
Total Marks	**100**

- The selection shall be made strictly on the basis of merit secured in the **OMR-based written examination**.
- The written examination shall consist of **100 objective-type questions**, carrying **one mark each**.
- There shall be **negative marking of 0.25 marks for each wrong answer**.

Scheme for Objective-Type Written Test (OMR Based)

- **Number of objective-type questions:** 100
- **Marks allotted to each correct answer:** 01
- **Negative marks for each incorrect answer:** 0.25
- **Time allowed:** 110 minutes

Syllabus for the post of Senior Technical Assistant (Computer Science)

Unit 1: Network Device Configuration and Secure Access

Configure console, Telnet, and SSH access on Cisco devices with authentication and encryption settings. Configure enable secret and service password encryption. Assign IP addresses to interfaces, including calculating subnet masks, determining wildcard masks, broadcast addresses, and default gateways. Use both classfull and classless addressing schemes.

Unit 2: VLANs and Inter-VLAN Communication

Configure VLANs on managed switches. Assign switch ports to specific VLANs. Set up trunk links using IEEE 802.1Q encapsulation. Implement Inter- VLAN routing using Router- on- a- Stick (ROAS) or Layer 3 switches. Verify connectivity between VLANs.

Unit 3: DHCP and Network Address Translation

Configure DHCP services on routers or dedicated servers. Configure DHCP pools, excluded addresses, lease time, and verify DHCP bindings. Implement NAT (Static, Dynamic, PAT) for private- to- public IP translation. Validate NAT functionality through simulation and testing.

Unit 4: Network Security and Switching Protocols

Secure switch ports using Port Security (sticky MAC, shutdown, restrict, protect modes). Configure Spanning Tree Protocol (STP) and Rapid STP (RSTP). Assign bridge priority manually to optimize path selection and prevent switching loops.

Unit 5: Routing Protocols and Access Control

Implement Static Routing and Default Routing. Configure dynamic routing protocols. Implement route redistribution between protocols (e.g., OSPF and EIGRP). Configure Standard and Extended Access Control Lists (ACLs) for traffic filtering based on IP, protocols, and ports.

Unit 6: Windows Server Installation & Virtualization and Hardware Troubleshooting

Install and configure Windows Server OS. Perform initial configuration (hostname, IP settings, domain membership). Enable remote management and server roles. Create and configure virtual machines using Hyper- V or Oracle Virtual Box. Allocate CPU, memory, storage, and configure virtual network adapters. Hardware Troubleshooting (RAM, Processor, BIOS, Peripheral, Power Supply, Network) Installation of SATA and NVMe SSDs; Common RAM issues and diagnostics Power- on Self Test (POST), Memory testing tools (e.g., MemTest)

Unit 7: Directory Services and DNS Management

Install and configure Active Directory Domain Services (AD DS). Deploy a sample web page and configure IIS Web Server. Install and configure DNS Server. Create forward and reverse lookup zones. Configure A, CNAME, MX, and PTR records. Test DNS functionality.

Unit 8: File Services and Backup Management

Configure shared folders on Windows Server. Implement NTFS and share permissions. Enable offline files and access auditing. Create user accounts manually or via Group Policy. Implement Windows Server Backup, scheduled backups, system image backup, and restoration.

Unit 9: Linux System Administration and Automation

Install and configure Linux distributions (Ubuntu, CentOS, Debian). Manage users, groups, and permissions (chmod, chown). Manage storage using LVM and NFS. Configure and manage services using systemd (start, stop, enable, disable). Configure SSH with key authentication and firewall rules using iptables/firewall. Use monitoring tools: top, htop, df, du, netstat. Write Bash scripts for automation. Schedule tasks using cron and systemd timers.

Unit 10: DGX A100 AI Server Administration

Understand DGX A100 architecture, NVIDIA A100 Tensor Core GPUs, NVLink interconnect, and DGX OS. Install and update DGX OS and NVIDIA drivers. Configure Docker and NVIDIA Container Toolkit for GPU- accelerated containers. Monitor GPU utilization, temperature, and performance using nvidia- smi and DCGM tools. Manage deep learning environments using NGC containers and frameworks such as TensorFlow, PyTorch, and RAPIDS. Configure high- speed data transfer using Mellanox/InfiniBand interfaces. Implement system- level security and access control for multi- user AI research environments. Backup and restore critical data and system configurations in DGX environments

Sd/-

No. F(syllabi-STA-Rect)KU/26
Dated: 16-06-2026

Deputy Registrar
Recruitment