GANPAT UNIVERSITY

FACULTY OF COMPUTER APPLICATIONS

Programme	B.Sc. IT (Infrastructure Management Services) (Hons.)	**Branch/Spec.**	Computer Applications
Semester	III	**Version**	1.0.0.0
Effective from Academic Year	2025-26	**Effective for the batch Admitted in**	June 2024
Subject Code	U43A2SNM1	**Subject Name**	Server Network Infrastructure Management -I

Teaching scheme						**Examination scheme (Marks)**			
(Per wee	**Lecture (DT)**		**Practical (Lab.)**		**Total**		**CE**	**SEE**	**Total**
	L	TU	P	TW					
Credit	2	0	2	0	4	Theory	50	50	100
Hours	2	0	4	0	6				

Objective:

Students can understand the concepts of Microsoft Client and server Technology and also able to create server.

Pre-requisites:

Basic knowledge of basic concept of Network Terminology and Protocol.

Course Outcomes :

Name of CO	**Description**
CO1	Understand the concept of basic client server architecture with DNS and FTP
CO2	Understand and Apply Selection of group policy and firewall rules.
CO3	Understand and creation of DFS and IP security for security purpose.
CO4	Creating VPN server and NAT server for Public and Private IP concept.

Mapping of CO and PO

CC	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CC	1	1	3	1	3	2	2	1	0	0	2	1
CC	2	0	2	0	3	1	2	0	0	1	3	1
CC	1	1	3	1	2	2	2	0	1	0	2	2
CC	2	0	3	0	3	1	2	1	0	0	2	1

Theory Syllabus

Ur	**Content**	**Hrs.**
1	**Basics of Client Server Architecture, DNS.** **Basics of Client Server Architecture: -** Overview of client/ server, P2P, Types of Client Server Architecture. **DNS: -** Overview of DNS, basic information about zone, DNS hierarchy, Name Resolution. Configuratio and Implementation of DNS, Domain vs Workgroup, **FTP: -** Intranet Internet Extranet, FTP server, FTP Authentication Method, Configuration and Implementation of FTP.	**9**

2	**Group Policy, Firewall.** **GP: -** How it Works, GPO, GPMC, Configuration and Implementation of GP, WMI Filter, Local User an Domain user, **Firewall: -** Introduction of Firewall, Types of Firewalls, Firewall Profiles, Inbound and Outbound Traffic. Configuration & Rules of Firewall.	**6**
3	**IPSec Policy, DFS.** **IP Sec Policy: -** Introduction of IP Sec Policy, Architecture of IP Sec, Protocol of IP Sec, Encryption, decryption Policy, configuration of IP Sec Policy and Implementation of IP Sec Policy **DFS: -** Overview of DFS, Namespace creation and its types, overview of replication, Creation method of replication, mesh topology,	**7**
4	**VPN, NAT, Routing** **VPN: -** Overview of VPN, VPN protocol, L2TP, PPTP, Configure and implementation of VPN. **NAT: -** Overview of NAT, Public IP, Private IP, pros – Cons Public and Private IP, Proxy Server concept, **Routing: -** what is router, overview of routing protocol types, Important of routing table,	**8**
Text Books:		
1	Configuring Windows Server 2008 Network Infrastructure by J.C. Mackin and Tony Northrup-Microsoft Press	
2	Microsoft Windows Server 2008 R2 Administration Instant Reference Paperback – Import, 22 January 2010 by Matthew Hester, Chris Henley, Sybex.	
3	Windows Server 2008 Administrator's Companion Paperback – 1 January 2008, 1st edition (22 January 2010) by Russel, Charli, Sybex.	
Reference Books:		
1	Windows Server 2008 Server Administrator Kindle Edition by Stuart Ami ASIN : B00ON6VFVU	
2	All the Steps of Server 2008: Hand Book of Server 2008, Vishweshwar Sahini, ASIN: B079W4XMZJ.	
3	Windows Server 2008 R2: Interview Questions You'll Most Likely Be Asked Paperback – Import, 1 January 2012 , by Vibrant Publishers, CreateSpace	
Web References / MOOC / Certification Course:		
1	http:// www.coursera.org/learn/illinois-tech-microsoft-windows-os?action=enroll	
2	http:// www.coursera.org/learn/windows-server-management-security	
3	http:// www.coursera.org/learn/operating-systems-overview-administration-security	
4	http:// www.udemy.com/course/configuring-managing-and-maintaining-windows-server-2008	
Question Paper Scheme:		

University Examination Duration:2Hours

Note for Examiner:

Q-1 Must be common from any topics from the syllabus.

Q-2 And onwards must be from specific topics and internal choice or option can be given.

Paper Structure:

Q-1 Must be from all Unit Any Five out of seven **(25 Marks)** (CO1, CO2, CO3, CO4)

Q-2 Must be from Unit 1: Any Two out of Three **(06 Marks)** CO1

Q-3 Must be from Unit 2: Only one question without any option **(05 Marks)** CO2

Q-4 Must be from Unit 3: Any Two out of Three **(08 Marks)** CO3

Q-5 Must be from Unit 4: Any Two out of Three **(06 Marks)** CO4