

Course Code	Course Title	L	T	P	C
BITE408L	Network Management	3	0	0	3
Pre-requisite	BITE305L, BITE305P	Syllabus version			
		1.0			
Course Objectives:					
<ol style="list-style-type: none"> 1. To introduce network management models and design issues 2. To provide sound understanding of network management functions 3. To facilitate a mastery of network management protocols and standards 					
Course Outcomes:					
<ol style="list-style-type: none"> 1. Comprehend the network management architecture and organization 2. Analyze principles of network management models and standards 3. Investigate and manage the networked systems using SNMP protocols 4. Design a component to monitor remote networks 5. Apply network management tools for various applications 					
Module:1	Network Management Overview	4 hours			
Goals, Organization and functions – Network Management Architecture and Organization - Current Status and Future of Network management.					
Module:2	Standards, Models and Language	8 hours			
Network management standards - Network management Models - Organization, Information, Communication and Functional Models.					
Module:3	SNMPv1	8 hours			
SNMP Model - Organization Model - System Overview - Information Model - Communication and Functional Models.					
Module:4	SNMPv2	6 hours			
Major changes in SNMPv2 - System architecture - Structure of Management Information – MIB – SNMPV2 protocol.					
Module:5	SNMPv3	6 hours			
Key features – Architecture – Applications – MIB – Security – User-based Security Model -Access Control.					
Module:6	Remote Network Monitoring	5 hours			
Remote Monitoring – RMON SMI and MIB – RMON1 – A Case Study on Internet Traffic.					
Module:7	Network Management Tools and Applications	6 hours			
System utilities for Management – Measurement of Network Statistics – Network Management Applications.					
Module:8	Contemporary Issues	2 hours			
Total Lecture hours:					45 hours
Text Book					
1.	Mani Subramanian, Timothy A Gonsalves, N Usha Rani, "Network Management Principles and Practices", Addison Wesley New York, 2 nd edition, 2012.				

Reference Books			
1.	William Stallings, "SNMP, SNMPv2, SNMPv3, and RMON 1 and 2", Pearson Education, 2012		
2.	Verma, Dinesh Chandra, "Principles of Computer Systems and Network Management", Springer US, 2009		
Mode of Evaluation: Continuous Assessment Tests, Assignment, Quiz, Final Assessment Test			
Recommended by Board of Studies		12-10-2022	
Approved by Academic Council		No. 68	Date 19-12-2022