Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj
Master of Science (Computer Applications & Information Technology)
Semester: IX

Paper Code: CCCS937		Total Credit : 4
Title of Paper: Advanced Networking		**Total Marks :** 70 **Time :** 3 Hrs
Unit	**Description**	**Weighting**
I	**The Network Layer** Routing Algorithms, Shortest Path Routing, Flooding, Distance Vector Routing, Link State Routing, Hierarchical Routing, Congestion Control Algorithms, IP addresses and Classes, Subnets and Subnet masks. IPv4 v/s. IPv6, Introduction to wire shark & packet analysis.	**20%**
II	**The Transport Layer** Quality Of Service, Transport Service Primitives, MAC protocols, CSMA/CD, Establishment of Connection, Releasing of Connection, Flow Control and Buffering, Multiplexing, UDP Protocols, Real-time Transport Protocol[RTP].	**20%**
III	Introduction to virtual machine & configure with real-time machine, Installation of windows server 2012 & Red hat linux server , Configure firewall , Antivirus ,Generate & authenticate open VPN certificate & RSA key	**20%**
IV	Introduction to Cisco Packet Tracer[CPT],Establish own network using CPT, Introduction to software reversing with ollydbg[debugger] & reflector[dotnet]	**20%**
V	Troubleshooting: PC, Router, Switch, Data Recovery from crash hard disk, bad sector repair, hard disk data recovery, real-time network administration	**20%**
Basic Text & Reference Books :-		
1.	Computer Networks 4th Edition - Andrew Tanenbaum	
2.	Computer Networking: A Top-Down Approach Featuring the Internet By James F.Kurose , Keith W.Ross	
3.	Data Communication & Networking 4th Edition By Behrouz A.Forouzan	

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Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	