

**GUJARAT TECHNOLOGICAL UNIVERSITY****Syllabus for Diploma in Vocation (D.Voc), 4<sup>th</sup> Semester****Branch: Software Development****Subject Name: Computer Networks****Subject Code: 1240203****With effective  
from academic  
year 2018-19**

Teaching Scheme			Credits	Examination Marks				Total Marks
L	P	OJT		Theory		Tutorial/ Practical		
			University exams (ESE)	Progressive Assessment (PA)	External Practical /viva Exam(ESE)	Internal evaluation Practical /viva Exam(PA)		
3	-	-	3	50	-	-	-	50

L- Lectures; P- Practical; OJT- On Job Training; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment

**Course Content:**

Sr. No.	Content	Hours
1.	<b>Introduction to computer Network -Communication:</b> An Essential Part of Our Lives, Communicating in a Network-Centric World, Network as a Platform, Architecture of the Internet, Trends in Networking Communicating over the Network -Platform for Communications, LANs, WANs, and Internetworks, Protocols, Using Layered Models, Network Addressing	13
2.	<b>Application Layer Functionality and Protocols -Applications:</b> The Interface Between the Networks, Making Provisions for Applications and Services, Application Layer Protocols and Services Examples OSI Transport Layer -Roles of the Transport Layer, IPv4 Addresses, TCP: Communicating with Reliability, UDP: Communicating with Low Overhead	13
3.	<b>OSI Network Layer -IPv4, Networks:</b> Dividing Hosts into Groups, Routing, How Data Packets Are Handled, Routing Processes Addressing the Network-IPv4 Addresses for Different Purposes, Assigning Addresses, Calculating Addresses, Testing the Network Layer OSI Data Link Layer -Data Link Layer, MAC Techniques, MAC Addressing and Framing Data	13
	<b>Total Hours:</b>	<b>39</b>

**Suggested Specification table with Marks (Theory):**

Distribution of Theory Marks				
R Level	U Level	A Level	N Level	E Level
5	20	15	5	5

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate and above Levels (Bloom's Taxonomy)

**Reference Book(s):**

1. An Integrated Approach to Computer Networks, Bhavneet Sidhu, Khanna Publishing House
2. Computer Networks, Gupta & Gupta, Khanna Publishing House