

**SARDAR PATEL UNIVERSITY**  
**Programme & Subject: M.Sc (CA & IT) Semester: II**  
**Syllabus with Effect from: June-2019**

<b>Paper Code: PS02CIIT32</b>	<b>Total Credit: 4</b>
<b>Title Of Paper: Wireless Communication</b>	

Unit	Description in Detail	Weightage (%)
I	<b>Introduction to Wireless Communication</b> History of Wireless Communication, Introduction to Wireless communication Introduction to Mobile Computing Bluetooth, Wi-fi, Radio Frequency Identification (RFID), Wireless Broadband.	25%
II	<b>CDMA, 3G, Wireless LAN and VOIP</b> Spread-spectrum Technology, CDMA versus GSM, Wireless data, Applications in 3G . Wireless LAN , Wireless LAN advantages,IEEE802.11 standards ,Wireless LAN architecture, Mobility in Wireless LAN, Deploying Wireless LAN, Mobile adhoc networks and sensor networks, WiFi v/s 3G Introduction to VOIP, Session Initiation Protocol (SIP), VOIP applications	25%
III	<b>General Packet Radio Service (GPRS) and Wireless Application Protocol (WAP)</b> GPRS and packet data network, GPRS network architecture GPRS network operation, data services in GPRS, Applications of GPRS, Billing and charging in GPRS. Introduction to Wireless Application Protocol (WAP), WAP architecture and Application Environment	25%
IV	<b>Mobile Computing Technologies and GSM</b> Mobile computing Functions, Architecture for Mobile Computing Three-Tier Architecture, design considerations for mobile computing Introduction to GSM, GSM architecture, GSM entities, call routing in GSM,PLMN interface, GSM addresses and identifiers, network aspects in GSM,GSM frequency allocation, authentication and security. Short message services, Mobile computing over SMS,SMS, value added services through SMS	25%

**Basic Text & Reference Books:-**

- Asoke K Telukder, Roopa R Yavagal : Mobile Computing , Tata McGraw Hill, Second Edition,2010.
- The complete reference J2ME, Tata McGraw Hill, 2003.
- G. T. Thampi : Programming for Mobile and Remote Computers, dreamtech,2010.
- Ivan Stojmenovic ,Wiley : Handbook of Wireless Networks and Mobile Computing,2002.

