

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE – SEMESTER- VII EXAMINATION-SUMMER 2023****Subject Code: 3170710****Date: 26/06/2023****Subject Name: Mobile Computing and Wireless Communication****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		<b>MARKS</b>
<b>Q.1</b>	(a) Describe IMSI,IMEI, MSRN in brief.	<b>03</b>
	(b) Compare Packet Switching and Circuit Switching.	<b>04</b>
	(c) Describe the factors that affect Channel Capacity. Explain Nyquist and Shannon Criteria for finding Channel Capacity.	<b>07</b>
<b>Q.2</b>	(a) Describe Hamming Distance with example.	<b>03</b>
	(b) Compare GSM and GPRS.	<b>04</b>
	(c) Describe Direct Sequence Spread Spectrum.	<b>07</b>
<b>OR</b>		
	(c) Describe Multiple Access with Collision Avoidance.	<b>07</b>
<b>Q.3</b>	(a) Compare HLR and VLR.	<b>03</b>
	(b) Describe IEEE 802.11 Architecture in brief.	<b>04</b>
	(c) What is Signal Propagation? Describe various Propagation Modes.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Describe various Transmission Media in brief.	<b>03</b>
	(b) Compare 1G, 2G , 3G and 4G Technology.	<b>04</b>
	(c) Write needs of ARQ. Explain ARQ in detail.	<b>07</b>
<b>Q.4</b>	(a) Define Handover and explain types of handover in brief.	<b>03</b>
	(b) Describe Mobile IP in brief.	<b>04</b>
	(c) Write a note on Cyclic Redundancy Check.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) How billing and charging is done in GPRS?	<b>03</b>
	(b) Differentiate Wi-Fi and Wi-Max.	<b>04</b>
	(c) Draw and explain GSM Architecture.	<b>07</b>
<b>Q.5</b>	(a) Explain Android TextView control with an example.	<b>03</b>
	(b) Enlist various Android layouts and explain in brief.	<b>04</b>
	(c) Describe Bluetooth Protocol stack.	<b>07</b>
<b>OR</b>		
<b>Q.5</b>	(a) Discuss types of Intents.	<b>03</b>
	(b) Describe Activity Life Cycle in Android.	<b>04</b>
	(c) Describe Android Application Framework with their components.	<b>07</b>