

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2170710****Date:16/05/2019****Subject Name:Mobile Computing and Wireless Communication****Time:02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

|            |   | MARKS     |
|------------|---|-----------|
| <b>Q.1</b> | (a) Define Reflection, Refraction and diffraction.                    | <b>03</b> |
|            | (b) Explain packet switching and circuit switching.                   | <b>04</b> |
|            | (c) Explain GSM call routing.   | <b>07</b> |
| <b>Q.2</b> | (a) Discuss hidden and exposed terminals.                             | <b>03</b> |
|            | (b) Write a short note on selective repeat ARQ.                       | <b>04</b> |
|            | (c) Explain various signal multiplexing techniques.                   | <b>07</b> |
|            | <b>OR</b>   |           |
|            | (c) Discuss Mobile IP.  | <b>07</b> |
| <b>Q.3</b> | (a) Differentiate infrastructure and ad-hoc network.                  | <b>03</b> |
|            | (b) Explain handover process in cellular system.                      | <b>04</b> |
|            | (c) Explain frequency hopping spread spectrum.                        | <b>07</b> |
|            | <b>OR</b>   |           |
| <b>Q.3</b> | (a) What are the advantages of WLAN.                                  | <b>03</b> |
|            | (b) What is Multi-path propagation and fading?                        | <b>04</b> |
|            | (c) Discuss GSM architecture in detail.                               | <b>07</b> |
| <b>Q.4</b> | (a) Discuss Piconet and Scatternet.                                   | <b>03</b> |
|            | (b) Describe any one error detection technique with suitable example. | <b>04</b> |
|            | (c) Explain DFWMAC-DCF using CSMA/CA.                                 | <b>07</b> |
|            | <b>OR</b>   |           |
| <b>Q.4</b> | (a) Differentiate GSM and CDMA.                                       | <b>03</b> |
|            | (b) Explain L2CAP protocol of Bluetooth.                              | <b>04</b> |
|            | (c) Draw and explain the GPRS transmission plane protocol model.      | <b>07</b> |
| <b>Q.5</b> | (a) Explain the power saving states of Bluetooth device.              | <b>03</b> |
|            | (b) Discuss Activity life cycle in Android.                           | <b>04</b> |
|            | (c) Explain Android platform architecture.                            | <b>07</b> |
|            | <b>OR</b>   |           |
| <b>Q.5</b> | (a) Explain types of Intents.   | <b>03</b> |
|            | (b) Discuss the manifest file with example.                           | <b>04</b> |
|            | (c) Write a note on Bluetooth protocol stack.                         | <b>07</b> |

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