

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER- VII EXAMINATION – SUMMER 2026

Subject Code:3170710

Date:29-05-2026

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.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

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|-----------|-----|---|----|
| Q.1* | (a) | Compare LAN, WAN and MAN. | 03 |
| | (b) | Describe various Transmission media in brief. | 04 |
| | (c) | Draw and explain GSM Architecture. Write functionalities of each of its entities. | 07 |
| Q.2 | (a) | Define IMSI,IMEI and MSISDN. | 03 |
| | (b) | Compare Packet Switching and Circuit Switching. | 04 |
| | (c) | Write the factor affecting Channel capacity. Explain Nyquist and Shannon Criteria for finding Channel Capacity. | 07 |
| OR | | | |
| | (c) | Describe Mobile IP. | 07 |
| Q.3 | (a) | Compare FDM and TDM. | 03 |
| | (b) | Describe Propagation mode in brief. | 04 |
| | (c) | Describe Direct Sequence Spread Spectrum. | 07 |
| OR | | | |
| Q.3 | (a) | Compare HLR and VLR. | 03 |
| | (b) | Define Antenna. Discuss various types of Antennas in brief. | 04 |
| | (c) | Describe Automatic Repeat request. | 07 |
| Q.4 | (a) | Compare Wi-fi and Wi-max. | 03 |
| | (b) | Discuss Handover and its types in brief. | 04 |
| | (c) | Describe WAP(Wireless Application Protocol). | 07 |
| OR | | | |
| Q.4 | (a) | Enlist various Error Detection techniques and explain any one in brief. | 03 |
| | (b) | Compare GSM and GPRS. | 04 |
| | (c) | Describe Bluetooth protocol stack. | 07 |
| Q.5 | (a) | Compare Piconet and Scatternet. | 03 |
| | (b) | Describe Android Button View Control and Text View Control. | 04 |
| | (c) | Define Android layouts. Explain various Android layouts. | 07 |
| OR | | | |
| Q.5 | (a) | Describe types of intents. | 03 |
| | (b) | Enlist the benefits of Manifest file. | 04 |
| | (c) | Describe Android Application Framework with their components. | 07 |
