

- N.B: (1) Question no 1 is compulsory.
 (2) Attempt any three of remaining.
 (3) Make suitable assumptions wherever necessary and state them.

- Q1 Attempt any 4
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| A) | What is frequency reuse concept in cellular communication? | 05 |
| B) | Explain various types of handoffs in GSM network | 05 |
| C) | Explain wireless local loop | 05 |
| D) | What is hidden and exposed terminal problem? Discuss solutions to these problems. | 05 |
| E) | What is an antenna. Explain different types of antennae | 05 |
| Q2. | A) Explain in detail Bluetooth protocol architecture | 10 |
| | B) Explain Hiperlan2 | 10 |
| Q3. | A) Why is mobile IP packet required to be forwarded through a tunnel. Explain minimal technique of encapsulation | 10 |
| | B) Explain the functioning of I-TCP and SNOOP-TCP giving advantages and disadvantages of both | 10 |
| Q4. | A) Explain GSM in detail | 10 |
| | B) Explain how Mobile Terminated Call works detailing the role of HLR and VLR | 10 |
| Q5. | A) Explain in detail 3G architecture | 10 |
| | B) Explain UTRA-FDD and TDD modes | 10 |
| Q6. | A) Write short notes on(any 02) | 20 |
| | A) Security issues in mobile computing. | |
| | B) UMTS. | |
| | C) Android components | |
| | D) Satellites (GEO and LEO) | |
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