**[M19CS1107]**
**I M. Tech I Semester (R19) Regular Examinations**
**MOBILE COMPUTING TECHNOLOGIES**
**DEPARTMENT OF ELECTRONICS & COMMUNICATIONS ENGINEERING**
**MODEL QUESTION PAPER**

TIME: 3Hrs.                                                    Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT.**
All questions carry equal marks.
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|     |      |                                                                                                                                                                                                             | CO  | KL  | M   |
| --- | ---- | ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- | --- | --- | --- |
|     |      | UNIT-I                                                                                                                                                                                                       |     |     |     |
| 1.  | a).  | Discuss the design considerations for mobile computing?                                                                                                                                                     | CO1 | 2   | 8   |
|     | b).  | Explain Mobile Computing thrgh Internet   .                                                                                                                                                                 | CO1 | 2   | 7   |
|     |      | OR                                                                                                                                                                                                          |     |     |     |
| 2.  | a).  | Explain the three tier architecture of Mobile computing with neat diagram.                                                                                                                                  | CO1 | 2   | 8   |
|     | b).  | Explain Middle ware and Gateways in details.                                                                                                                                                                | CO1 | 2   | 7   |
|     |      | UNIT-II                                                                                                                                                                                                     |     |     |     |
| 3.  | a).  | Discuss abt the mobile    services and data services in GSM.                                                                                                                                                | CO2 | 2   | 8   |
|     | b).  | Describe in detail abt GPRS    Network Architecture.                                                                                                                                                        | CO2 | 4   | 7   |
|     |      | OR                                                                                                                                                                                                          |     |     |     |
| 4.  | a).  | Write in detail abt Code division multiple    accesses (CDMA).                                                                                                                                              | CO2 | 4   | 7   |
|     | b).  | What are the benefits of reservation schemes? How are collisions avoided during data transmission, why is the probability of collisions lower compared to classical Aloha? What are the disadvantages of reservation schemes? | CO2 | 1,2 | 8   |
|     |      | UNIT-III                                                                                                                                                                                                    |     |     |     |
| 5.  | a).  | Explain the wireless LAN advantages?                                                                                                                                                                        | CO3 | 4   | 8   |
|     | b).  | Write a short note on IEEE 802.11 Standards.                                                                                                                                                                | CO3 | 2   | 7   |
|     |      | OR                                                                                                                                                                                                          |     |     |     |
| 6.  | a).  | Write abt    Wireless LAN Architecture with neat sketch.                                                                                                                                                    | CO3 | 2   | 8   |
|     | b).  | Discuss abt SS 7 Signaling system?                                                                                                                                                                          | CO3 | 1   | 7   |
|     |      | UNIT-IV                                                                                                                                                                                                     |     |     |     |
| 7.  | a).  | Explain in detail abt    Security considerations in MIDP?                                                                                                                                                   | CO4 | 2   | 8   |
|     | b).  | Write abt    Optional Packages?                                                                                                                                                                             | CO4 | 2   | 7   |
|     |      | OR                                                                                                                                                                                                          |     |     |     |
| 8.  | a).  | Draw Symbian OS Architecture and explain in detail.                                                                                                                                                         | CO4 | 2   | 8   |
|     | b).  | Discuss in detail abt    Design Constraints in Applications for Handheld Devices.                                                                                                                           | CO4 | 2   | 7   |
|     |      | UNIT-V                                                                                                                                                                                                      |     |     |     |
| 9.  | a).  | Compare H.323 and SIP?                                                                                                                                                                                      | CO5 | 2   | 8   |
|     | b).  | Write any two applications of Voice over IP.                                                                                                                                                                | CO5 | 2   | 7   |
|     |      | OR                                                                                                                                                                                                          |     |     |     |
| 10. | a).  | What are different Security Techniques and Algorithms? Explain any one algorithm.                                                                                                                           | CO6 | 1   | 8   |
|     | b).  | What are Security frameworks for Mobile Environment? Discuss.                                                                                                                                               | CO6 | 1   | 7   |

**CO-CRSE TCOME          KL       -KNOWLEDGE LEVEL          M-MARKS**