

**IV/IV B.Tech. DEGREE EXAMINATIONS, NOV/DEC- 2019****Second Semester****COMPUTER SCIENCE ENGINEERING****MOBILE COMPUTING****Time: Three Hours****Maximum marks:60****Answer Question No.1 Compulsory****6X2=12 M****Answer ONE Question from each Unit****4X12=48 M**

1.
  - a) What is tunneling?
  - b) What is random access?
  - c) Mention types of agent in mobile IP
  - d) What do you mean by WAP profile?
  - e) Mention the similarities and differences between adhoc and sensor networks?
  - f) Stateful cache invalidation

**UNIT-I**

2. Explain the three tier architecture of mobile computing.

**(OR)**

3.
  - a) What is mobile computing? Discuss the characteristics and functionalities of mobile computing environment.
  - b) Give a brief on Voice DML and TAPI

**UNIT-II**

4.
  - a) What is Handover? Differentiate between Hard Handover and Soft Handover. Discuss handover mechanism that takes place in GSM.
  - b) Identify the requirements for a wireless application protocol. Compare and contrast various versions in WAP with respect to the requirements.

**P.T.O**

**(OR)**

5. a) What are the different protocols used in GSM? Explain the protocol architecture in GSM.
- b) Briefly explain why security mechanisms are becoming increasingly important in wireless networks.

**UNIT-III**

6. Describe Channel structure, call processing and channel capacity of IS-95.

**(OR)**

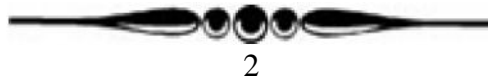
7. a) Explain the characteristic features of 3G network in comparison with 2G.
- b) Give a brief on Virtual Private Network.

**UNIT-IV**

8. Explain Windows CE architecture.

**(OR)**

9. Explain Applications Framework and Libraries of Android. Give the advantages and disadvantages of Android Operating System.



**IV/IV B.Tech. (Regular) DEGREE EXAMINATIONS, APRIL- 2019****Second Semester****COMPUTER SCIENCE & ENGINEERING****MOBILE COMPUTING****Time: Three Hours****Maximum marks:60****Answer Question No.1 Compulsory****6X2=12 M****Answer ONE Question from each Unit****4X12=48 M**

1. a) What is mobile computing?
- b) What is multiple access? Mention its advantages in brief
- c) What is data Hoarding?
- d) Brief on data caching invalidation mechanism
- e) Stateless cache invalidation
- f) Bluetooth supports two types of links between a master and a slave. What are they?

**UNIT-I**

2. a) Is a directional antenna useful for mobile phones? Why? How can the gain of an antenna be improved? Explain.
- b) Explain the evolution of telephony and elaborate on mobile computing.

**(OR)**

3. a) What are digital and analog signals? Is it possible to transmit a digital signal using radio transmission without any loss? Why?
- b) Give a brief on RFID, WiMAX.

**UNIT-II**

4. a) What are the different protocols used in GSM? Explain the protocol architecture in GSM.

**P.T.O**

b) Explain the value added services through SMS.

**(OR)**

5. a) Explain the network architecture and network operations of GPRS.

b) Give a brief on WAP and MMS.

### **UNIT-III**

6. a) Explain the wireless LAN security.

b) Explain the features of Mobile Phone and PDA.

**(OR)**

7. Explain SS#7 signaling.

### **UNIT-IV**

8. Explain features of Android as an operating system and elaborate on its stack of software components.

**(OR)**

9. Explain different flavors of Windows CE and its development environment.

