



**ARASU ENGINEERING COLLEGE, KUMBAKONAM**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Academic year 2018-2019**

**QUESTION BANK R- 2013**

**IT6601 – MOBILE COMPUTING QUESTION BANK**

**UNIT - I**

**Part A**

1. Define mobile computing.
2. Write a short note on mobile networking.
3. List any two mobile computing applications.
4. Give two characteristics of mobile computing.
5. Comment on MAC protocol.
6. Write a short note on fixed assignment schemes.
7. What is virtual home environment?
8. What are the three tier setups in mobile computing?
9. Mention three applications of mobile computing.

**Part B**

1. Explain the structure of mobile computing.
2. Explain the MAC protocols in detail.
3. Define mobile computing. Explain its characteristics and applications.
4. Explain fixed assignment schemes and random assignment schemes.
5. Write short notes on,
  - i) Mobile computing environment and
  - ii) MAC protocols.

## UNIT - II

### **Part A**

1. Define mobile IP.
2. What are the goals of mobile IP?
3. Define node, home agent, and home address in mobile IP.
4. Mention the basic capabilities of mobile IP.
5. Write a note on tunneling in mobile IP.
6. What is TCP?
7. Define any two types of TCP.
8. What is DHCP?
9. What are the advantages of TCP/IP?
10. List any two improvements of TCP/IP.

### **Part B**

1. Explain mobile IP in detail.
2. Define mobile IP. Explain the routing mechanism in detail.
3. What is TCP? Explain the architecture of TCP/IP with a schematic diagram.
4. Write short notes on
  - i) Mobile IP,
  - ii) Snooping TCP,
  - iii) Overview of TCP/IP.
5. Explain the registration, discovery, tunneling and encapsulation in mobile IP in detail.

### UNIT - III

#### **Part A**

1. What is GSM?
2. Write a note on network and switching subsystem.
3. What are GSM channels?
4. Write a note on handover procedure in GSM.
5. What is GPRS?
6. Draw the GPRS architecture.
7. What are LLC, RLC, and MAC in GPRS?
8. Define UMTS.
9. List two advantages in third generation wireless networks.
10. What is a PDP context procedure?

#### **Part B**

1. Explain GSM services, security and handover procedures.
2. Explain the architecture of GSM.
3. What is GSM? Explain its handover procedure and channel in detail.
4. Explain
  - i) Mobile number portability and
  - ii) Handover procedures in GSM.
5. Explain GPRS in detail.
6. What is UMTS? Explain UMTS in detail.
7. Explain the UMTS networks and list the advantages of third generation wireless standard.

## UNIT - IV

### **Part A**

1. What is MANET?
2. What are the advantages of MANET?
3. List any three characteristics of ad-hoc networks?
4. Mention any four advantages of MANET.
5. Write two properties of MANET.
6. What are the types of MANET routing protocols?
7. What are the fundamental steps in routing?
8. Write a note on VANET.
9. List any two security issues in MANET.
10. What is traditional routing?

### **Part B**

1. What is MANET? Explain the characteristics and applications of MANET.
2. Discuss the routing in MANET in detail.
3. Explain traditional vs MANET routing protocol in detail.
4. Write short notes on
  - i) MANET
  - ii) VANET,
  - iii) Traditional routing.
5. Explain vehicular ad-hoc network in detail.
6. What are the applications of MANET? Explain any one type of routing.
7. What are the popular routing protocols used in MANET? Explain.
8. Explain the characteristics of MANET.
9. Explain the security issues in MANET.

## UNIT - V

### **Part A**

1. What is the significance of device OS?
2. List two constraints of mobile device OS.
3. Mention any two mobile operating systems.
4. Write a note on palm OS.
5. What is function of iOS?
6. Write a note on Android.
7. List the four layer structure of Android.
8. Write a note on Blackberry.
9. What is M-Commerce? Give two advantages.
10. Write a short note on mobile payment system.

### **Part B**

1. What are the special constraints and requirements of mobile operating system?
2. Explain commerce mobile operating system.
3. What is the importance of software development kit iOS and Blackberry? Explain.
4. Write a note on android, blackberry, windows phone in detail.
5. Explain M-Commerce and security system in detail