**SWARNANDHRA COLLEGE OF ENGINEERING & TECHNOLOGY**

DEPARTMENT OF MASTER OF COMPUTR APPLICATIONS

**V SEMESTER**

SUBJECT: Mobile Computing Subject Code: 16MC5T03

Regulation: R16

**UNIT-1**

1. With suitable diagrams, explain GSM system architecture and GSM services.
2. Describe the mobile computing architecture with a neat diagram.
3. Explain the GPRS architecture with reference model.
4. Distinguish between guided and unguided transmission.
5. Describe the novel applications and limitations of mobile computing.
6. What are the limitations of Mobile computing?
7. What are the characteristics of mobile computing environment? Describe variants of mobile computing.
8. Define Mobile computing? Describe the multiplexing techniques with suitable diagrams.

**UNIT-2**

1. Explain the MAC layer issues- Hidden and exposed terminals, near and far terminals. Brief the solutions for the same.
2. Show the schematic operation of CDMA scheme.
3. Differentiate SDMA, FDMA, TDMA and CDMA?
4. Explain wireless LAN architecture with schematic block diagram.
5. Discuss MAC layer Bluetooth system.

**UNIT-3**

1. What is meant by mobile IP? Discuss the goals and layers of mobile IP.
2. Write a note on tunneling and encapsulation in mobile IP.
3. Discuss the concept of handover and location management in mobile IP.
4. How does Indirect TCP work? Discuss its advantages and disadvantages.
5. Write brief notes on congestion control in traditional TCP.
6. How can DHCP are used for mobility and support of mobile IP.
7. Write about

* Snooping TCP
* Mobile TCP

**UNIT-4**

1. Explain ACID transaction rules that should be maintained by database transactional models to achieve data integrity?
2. Discuss in detail about different hoarding techniques for databases.
3. Explain in detail about the client/server computing with adaptation.
4. Illustrate the architecture for data synchronization in mobile computing systems.
5. Discuss in detail about communication asymmetry and illustrate this with an example?
6. Describe in detail about selective tuning techniques.

**UNIT-5**

1. Explain in detail the mobile agent architecture with appropriate diagram.
2. What are the various types of routing algorithms in MANETs? Explain each of them in detail.
3. Illustratemobile device with at least one suitable example.
4. Show the working of DSDV routing in detail.
5. Discuss briefly the user scenario of Bluetooth.
6. Write a short note on
7. Linux for Mobile Devices
8. Android
9. Write a short note on
10. J2ME
11. Windows CE