AMSW27 WIRELESS AND MOBILE COMMUNICATION

UNIT-1 INTRODUCTION

1.1 History and evolution of mobile radio systems.

1.2 Types of mobile wireless services/systems-Cellular, WLL, Paging, Satelite systems, Standards,

1.3 Future trends in personal wireless systems- Cellular concept and frequency reuse,

1.4 Multiple Access Schemes, channel assignment and handoff.

UNIT-2 WIRELESS MEDIA

2.1 Wireless Media access control protocols- SDMA- FDMA- TDMA- CDMA- comparison. Telecommunication systems- GSM- DECT- TETRA- UMTS and IMT- 2000,

2.2 Satellite systems- GEO 139, LEO 139, MEO 140.

2.3 Routing- localization- handover- broadcast systems- overview.

2.4 Cyclic repetition of data- digital audio broadcasting- digital video broadcasting.

UNIT-3 WIRELESS LAN AND ATM

3.1 Wireless LAN- IEEE 802.11 standards- HIPERLAN- Blue tooth technology and protocols. Wireless Local Loop technologies.

3.2 Wireless ATM- motivation- working group- services- reference model- functions- radio access layer- handover- location management- addressing

3.3 Mobile QoS issues, delays, error and packet loss, error control schemes- Access point control protocol.

UNIT-4 MOBILE ARCHITECTURE

4.1 Choosing the right architecture- Application Architecture

4.2 Smart Client- Messaging Types- Messaging Value Chain.

UNIT-5 MOBILE AND WIRELESS SECURITY

5.1 Security Primer- Creating a Secure environment- Threads- Technologies- Other Security Measures- WAP Security- Smart Client Security

5.2 Overview of Smart Client Architecture- Mobile Operating Systems.

Reference Books:

1. Uyless Black, “Mobile and Wireless Networks”, Prentice Hall, 1996.
2. Willian C.Y.Lee, “Mobile Communication Design Fundamentals”, John Wiley, 1993.