Exam.Code:0938
Sub. Code: 6649

2054

B.E. (Electrical and Electronics Engineering)
Eighth Semester
EE-809: Wireless Communication

Time allowed: 3 Hours **Max. Marks: 50**

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Section.

x-x-x

1. **Attempt the following:-** (5x2)

a) What is edge technology, and how does it differ from traditional cloud computing?

b) What is the WiMax standard, and how does it improve on previous wireless communication standards?

c) What is small-scale fading, and how does it affect wireless communication signals?

d) What are path loss models, and how are they used in wireless communication system design?

e) What is Personal Access Communication System (PACS), and what are some of the applications and benefits of this technology?

Section A

2. Compare and contrast the main features of commonly used wireless communication systems such as GSM, CDMA, and LTE, and discuss the advantages and disadvantages of each system. (10)
3. What techniques can be used to improve coverage and capacity in cellular systems, such as cell splitting, sectorization, and frequency reuse? Explain how these techniques work and their impact on network performance. (10)
4. Describe some commonly used digital modulation techniques, such as amplitude shift keying (ASK), frequency shift keying (FSK), and quadrature amplitude modulation (QAM), and discuss the advantages and disadvantages of each technique. (10)

Section B

5. What is Broadband ISDN (B-ISDN) and Asynchronous Transfer Mode (ATM)? Explain how these technologies work and their applications in modern communication systems. (10)
6. Describe the operation of the Forward CDMA channel in a cellular communication system. What are the key features of CDMA technology, and how does it differ from other multiple access techniques such as TDMA and FDMA? (10)
7. What is the standard for cordless telephones, and how does it differ from cellular telephone systems? Discuss cordless telephone systems' main features and limitations and their applications in different contexts, such as residential. commercial. and