

# **Basics of mobile and Satellite Communication(22ETOE03) Question Bank for CIE1**

## **Unit 1: Fundamentals of Mobile Communication: Question Bank**

1. Explain the evolution of mobile communication from 1G to 5G.
2. Explain the **architecture of GSM** and its subsystems with a neat diagram.
3. Draw and explain the **GSM frame structure**.
4. Explain the **types of channels** used in GSM (logical and physical).
5. Discuss the **call setup procedure** in GSM for a mobile-originated call.
6. Describe **mobility management** in GSM.
7. Explain **handoff types** used in GSM.
8. Explain the **architecture of GPRS** with a neat diagram.
9. Discuss the **advantages and limitations of GSM**.
10. Compare **GSM** and **GPRS** in terms of architecture and functionality.
11. Explain the **GPRS architecture** and the role of SGSN and GGSN.

## **Unit II – Mobile Network Protocols and Services: Question Bank**

1. List the 5G emerging mobile technologies.
2. Write a note on any Four 5G emerging mobile technologies.
3. Explain the architecture of LTE (4G) with a neat diagram and list the main features of LTE.
4. Explain the 5G architecture and its components and list the key features and capabilities of 5G.
5. What are the features of Bluetooth and describe the working of Bluetooth?
6. With a neat diagram explain Wi-Fi architecture with its components (STA, AP, DS, ESS).
7. Describe the operation of Mobile IP with a suitable diagram and discuss the registration and tunnelling process in Mobile IP.
8. Explain the differences between GSM, GPRS, LTE and 5G.
9. Describe mobile communication protocols and their classification.