



**Department of Computer Science and Engineering**  
**CS8601 – Mobile Computing**

**Unit II – MOBILE TELECOMMUNICATION SYSTEM**

1. Which of the following usually stores all user-related data that is also relevant to GSM mobile systems?
  - a. VLR
  - b. HLR
  - c. CMR
  - d. SIM
  
2. Which of the following offers packet mode data transfer service over the cellular network?
  - a. TCP
  - b. GPRS
  - c. GSM
  - d. UMTS
  
3. Which one of the following enables us to use the entire bandwidth simultaneously?
  - a. TDMA
  - b. CDMA
  - c. FDMA
  - d. All of the above.
  
4. In the Cellular Network, on which of the following, the cell's shape depends?
  - a. Political conditions
  - b. Social Conditions
  - c. Environment condition
  - d. None of the above

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5. In which one of the following, the slow and fast hopping is used?
    - a) GSM
    - b) GPRS
    - c) FHSS
    - d) None of the above
  
  6. When was the 2G communication introduced in the market?
    - a) 1982
    - b) 1984
    - c) 1986
    - d) 1988
  
  7. Which one of the following is considered as the GSM supplementary service?
    - a) Emergency number
    - b) SMS
    - c) Call forwarding
    - d) All of the above
  
  8. Which is considered as the heart of GSM?
    - a) Network and switching subsystem
    - b) operational subsystem
    - c) Base station sub system
    - d) None of the above
  
  9. The term "HLR" stands for
    - a) Home location register
    - b) Home live register
    - c) House location register
    - d) None of the above

10. BSC comes under which of the following category?
- a) Operation
  - b) Radio
  - c) Network
  - d) Mobile
11. In which one of the following, time is specifically divided into several time slots that are in the fixed patterns?
- a) CDMA
  - b) TDMA
  - c) FDMA
  - d) ALL OF THE ABOVE
12. How many types of security services are provided by the GSM?
- a) 1
  - b) 2
  - c) 3
  - d) 4
13. The term \_\_\_\_\_ refers to transporting a mobile station from one base station to another base station.
- a) ROAMER
  - b) FORWARD CHANNEL
  - c) HANDOVER
  - d) MIN
14. \_\_\_\_\_ is one of the responsibilities of MSC
- a) CONNECTING MOBILE TO PSTN
  - b) CONNECTING TO BS TO MSC
  - c) Add answer 3 optional
  - d) Add answer 4 optional

15. The shape of the cellular region for maximum radio coverage is
- Circular
  - Square
  - Oval
  - Hexagon
16. What does UMTS stands for?
- Universal Mobile Telephone System
  - Ubiquitous Mobile Telephone System
  - Ubiquitous Mobile Telemetry System
  - None of the above
17. UMTS uses \_\_\_\_\_ medium access scheme.
- CDMA
  - FDMA
  - SDMA
  - TDMA
18. What are the information present in the GPRS QoS profile?
- Service Precedence
  - Delay Class
  - Data throughput
  - All the above
19. GPRS context consists of \_\_\_\_\_
- Ciphering Key Sequence Number
  - Temporary Logical Link Identity
  - Status of the MS
  - GTP

20. Which of the following is the world's first cellular system to specify digital modulation and network level architecture?

- a) GSM
- b) AMPS
- c) CDMA
- d) IS-54

21. UMTS is also known as \_\_\_\_\_

- a) IS-95
- b) GPRS
- c) CdmaOne
- d) W-CDMA

22. Handover between the Node B's in UMTS is called \_\_\_\_\_

- a. Hard handover
- b. Soft handover
- c. Intersystem handover
- d. None of the above

23. Hard handover occurs in \_\_\_\_\_ mode only

- a. TDD
- b. FDD
- c. W-CDMA
- d. None of the above

24. \_\_\_\_\_ manages the switching function in GSM.

- a) BSS
- b) NSS
- c) OSS
- d) MSC

25. Which of the following memory device stores information such as subscriber's identification number in GSM?
- a) Register
  - b) Flip flop
  - c) SIM
  - d) SMS

### **ANSWERS**

- 1. d. SIM
- 2. b. GPRS
- 3. b. Social conditions
- 4. b. CDMA
- 5. c. FHSS
- 6. d. 1988
- 7. c. Call forwarding
- 8. a. Network and switching subsystem
- 9. a. Home location register
- 10. b. Radio
- 11. b. TDMA
- 12. c. 3
- 13. c. HANDOVER
- 14. a. CONNECTING MOBILE TO PSTN
- 15. d. Hexagon
- 16. a. Universal Mobile Telephone System
- 17. a. CDMA

- 18. d. All the above
- 19. c. Status of the MS
- 20. a. GSM
- 21. d. W-CDMA
- 22. c. Soft handover
- 23. a. TDD
- 24. b. NSS
- 25. c. SIM

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