



**Department of Computer Science and Engineering**

**CS8601 – Mobile Computing**

**Unit I- INTRODUCTION**

1. Follow on and support services are \_\_\_\_\_ dependent services.
  - a. Privacy
  - b. Information
  - c. Embedded
  - d. Location
  
2. \_\_\_\_\_ and \_\_\_\_\_ are the two different forms of mobility.
  - a. user portability and device portability
  - b. user mobility and device mobility
  - c. user mobility and device portability
  
3. The main difference between 1G and 2G is \_\_\_\_\_
  
4. \_\_\_\_\_ tells how several users can share the medium with minimum or no interference.
  - a. Spread Spectrum
  - b. Multiplexing
  - c. CDMA
  - d. Spreading
  
5. \_\_\_\_\_ multiplexing is used by old analog telephone systems.
  - a. Time Division Multiplexing
  - b. Code Division Multiplexing
  - c. Space Division Multiplexing
  - d. Frequency Division Multiplexing

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6. The drawback of FDM is \_\_\_\_\_
- waste of channels
  - require co-ordination of senders
  - Code must be orthogonal
  - waste of frequency resources
7. \_\_\_\_\_ multiplexing is used in mobile communications.
- FDM
  - TDM
  - SDM
  - CDM
8. A good code should be \_\_\_\_\_ and \_\_\_\_\_
9. Spread spectrum helps to avoid \_\_\_\_\_
- Interference
  - Spreading
  - narrowband interference
  - multiplexing
10. On spreading the signals, transmit power is \_\_\_\_\_
- Increased
  - Decreased
11. Transmitter and receiver stay in one channel for a certain time and then hop to another channel. This is called \_\_\_\_\_ spectrum.
- Direct Sequence Spread Spectrum
  - Frequency Hopping Spread Spectrum

12. The signal strength increases with square of distance
- True
  - False
13. Throughput is doubled in Slotted ALOHA due to \_\_\_\_\_
- Time division
  - Frequency division
  - Slotting
  - Spreading
14. Give an example of explicit reservation scheme
15. Multiple Access with Collision Avoidance uses \_\_\_\_\_ and \_\_\_\_\_ packets
16. Barker Code is an example of good \_\_\_\_\_
- Orthogonal code
  - Autocorrelation
  - CDMA
  - All the above
17. Polling is a \_\_\_\_\_ TDMA scheme.
- Distributed
  - Multiple access
  - Centralized
  - None of the above
18. In reservation TDMA, N mini-slots and \_\_\_\_\_ slots make a frame
- $N - K$
  - $N + K$
  - $N/k$
  - $N * K$

19. \_\_\_\_\_ problem occurs when many mobile users share the same channel.
- Near-far
  - Activation
  - LOS
  - Windowing
20. The space between the interference ranges is called \_\_\_\_\_ space.
21. TDMA requires \_\_\_\_\_ between senders to avoid interference
- Handshaking
  - Synchronization
  - Guard space
  - None of the above
22. The advantage of Code Division Multiplexing is \_\_\_\_\_
- Gives good protection against interference
  - Code space is huge
  - Protection against tapping
  - All the above
23. Hidden terminal problem could be solved by \_\_\_\_\_
- MACA
  - CSMA
  - CSMA/CD
  - None of the above.
24. A channel that allows simultaneous transmission in both directions is called \_\_\_\_\_
- Simplex
  - Duplex
  - Half duplex
  - Half simplex

25. \_\_\_\_\_ CSMA uses probability to transmit the data.
- 1 persistent
  - P persistent
  - Non persistent

### **ANSWERS**

- d. Location
- c. user mobility and device portability
- 1G is analog, 2G is digital
- b. Multiplexing
- c. Space Division Multiplexing
- d. waste of frequency resources
- b. TDM
- orthogonal, autocorrelation
- c. narrowband interference
- b. decreased
- b. Frequency Hopping Spread Spectrum
- b. False
- c. Slotting
- Demand Assigned Multiple Access
- RTS and CTS
- b. Autocorrelation
- c. Centralized
- d.  $N * K$

19. a. Near and far

20. guard

21. b. Synchronization

22. d. All the above

23. a. MACA

24. b. duplex

25. b. p persistent

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