DEPARTMENT OF M.Sc (SE)

TWO MARK QUESTION

SUBJECT : MOBILE COMPUTING

UNIT 1

1. Define SAMA?

    Spread Aloha Multiple Access is a combination of CDMA and TDMA. The CDMA better suits for connection oriented services only and not for connection less bursty data traffic because it requires programming both sender and receiver to access different users with different codes.

2. Define CDMA?

    Code Division Multiple Access systems use codes with certain characteristics to separate different users. To enable access to the shared medium without interference. The users use the same frequency and time to transmit data. The main problem is to find good codes and to separate this signal from noise. The good code can be found the following 2 characteristic

    1.Orthogonal.

    2.AutoCorrelation.

3. What are the several versions in CSMA?

    There are several versions in CSMA, they are as follows

    a) non-persistent CSMA

    b) p-persistent CSMA

    c) 1-persistent CSMA

4. What is meant by non-persistent CSMA?

    In, non-persistent CSMA, stations sense the carrier and start sending immediately if the medium is idle., if the medium is busy, the station pauses a random amount of time before sensing the medium again and repeating this pattern.

5. What is SDMA?

    Space Division Multiple Access (SDMA) is used for allocating separated spaces to users in wireless networks. The basis for the SDMA algorithm is formed by cells and

sectorized antennas which constitute the infrastructure implementing space division multiplexing (SDM)

6. What is FDD?

In FDMA, the base station and the mobile station establish a duplex channel. The two directions, mobile station to base station and vice versa are separated using different frequencies. This Scheme is called Frequency Division Duplex (FDD)

7. What are the 2 sub layers in DLC?

Logical Link Control(LLC)

Media Access Control(MAC)

8. What do you mean by Polling?

Polling is a strictly centralized scheme with one master and several slave stations. The master can collect the list of stations during the contention phase and can poll these slaves according to many schemes like round robin, random access, reservation scheme etc.

9. What are the four types of handover available in GSM?

1.Intra cell Handover

2.Inter cell Intra BSC Handover

3.Inter BSC Intra MSC handover

4.Inter MSC Handover

10. What is TETRA?

TETRA (Terrestrial Trunked Radio) systems use different radio carrier frequencies, but they assign a specific carrier frequencies for a short period of time according to demand. TETRA's are highly reliable and extremely cheap.

UNIT 2

1. what are the categories of Mobile services?

    • Bearer services

    • Tele services

    • Supplementary services

2. . What are the services provided by supplementary services?

    • User identification

    • Call redirection

    • Call forwarding

    • Closed user groups

    • Multiparty Communication

3. What are types of Handover?

    Intra-cell handover

    Inter-cell ,intra- BSC handover

    Inter-BSC, intra-MSC handover

    Inter MSC handover

4. What is meant by GPRS?

    The General Packet Radio Service provides packet mode transfer for applications that exhibit traffic patterns such as frequent transmission of small volumes.

5. What are subsystems in GSM system?

    • Radio subsystem(RSS)

    • Network & Switching subsystem(NSS)

    • Operation subsystem(OSS)

6. What are the information in SIM?

    • card type, serial no, list of subscribed services

    • Personal Identity Number(PIN)

    • Pin Unlocking Key(PUK)

    • An Authentication Key(KI)

7. Define Normal Burst?

The frame used for normal data transmission within a time slot is called Normal Burst.

8. What are the logical channels in GSM?

• Traffic channel(TCH)

• Control channel(CCH)

9. What is the function of Medium Access Control Layer?

The functions of Medium Access Control Layer is responsible for establishes, maintains, and releases channels for higher layers by activating and deactivating physical

10. What is meant by GEO?

GEO means Geostationary or Geosynchronous earth orbit. GEO satellites have a distance of almost 36000 km to the earth. Examples are almost all TV and radio broadcast satellites, many weather satellites and satellites operating as backbone for the telephone network.

11. what are the advantages of GEO?

Three GEO satellites are enough for a complete coverage of almost any spot on earth, senders and receivers can use fixed antennas positions, no adjusting is needed. Therefore GEO's are ideal for T.V and radio broadcasting

12. What is Handover?

The satellite is the base station in satellite communication systems and that it self is moving. So, additional instance of handover are necessary due to the movement of the satellite

1.Intra Satellite handover:

2.Inter Satellite handover.

3.Gateway handover.

4.Inter System handover.

13. What are the registers maintained by the gateway of satellite?

1.Home Location Register(HLR).

2.Visitor Location Register(VLR).

14. Applications of Satellite ?

Satellites can be used in the Following Areas

• Weather Forecasting

• Radio and TV broadcast Satellites

• Military Satellites

• Satellites for Navigation

UNIT 3

1. what is meant by beacon?

A beacon contains a timestamp and other management information used for power management and roaming.

e.g., identification of the base station subsystem(BSS)

2. What is Active scanning?

Active scanning comprises sending a probe on each channel and waiting for response. Beacon and Probe response contain the information necessary to join the new BSS.

3. What is Passive Scanning?

Passive Scanning Simply means listening into the medium to find other networks, i.e. receiving the beacon of another network issued by the synchronization function within an access point

4. what is the primary goal of IEE 802.11?

The primary goal of the standard was the specification of a simple, robust, WLAN which offers time bounded and asynchronous services also it should be able to operate with multiple physical layers.

5. what is meant by SIFS?

SIFS means Short Inter Frame Spacing. The shortest waiting time defined for short control message such as acknowledgements or polling response.

6. What are Advantages of wireless LAN?

Flexibility,

Planning,

Design,

Robustness,

Quality Service,

Cost,

Proprietary Solution,

Restriction,

Safety and Security

7. What are Design Goals of Wireless LAN?

Global Operation

Low Power

License-free Operation

Robust transmission technology

Simplified spontaneous co-operation

Easy to use

protection of investment

Safety and Security

Transparency for application

8. What are the three Low Power States provided by Bluetooth?

PARK state

HOLD state

SNIFF state

9. What is SCO?

SCO-stands for Synchronous Connection Oriented Link

Standard telephone (voice) connection require symmetrical, circuit-switched, point-topoint

10. What do you meant by roaming?.

Moving between access point is called roaming. Even wireless networks may require more than one access point to cover all rooms. In order to provide uninterrupted service, we require roaming when the user moves from one access point to another.

11. What is mobile routing?

Even if the location of a terminal is known to the system, it still has to route the traffic through the network to the access point currently responsible for the wireless

terminal.Each time a user moves to a new access point, the system must reroute traffic. This isknown as mobile routing.

12. What are the functions which support service and connection control?

Access point control function

Call control and connection control function

Network security agent

Service control function

Mobility management function

UNIT 4

1. What are different types of handover?

Hard handover

Terminal initiated

Network initiated

Network initiated, terminal assisted

Network controlled

Backward handover

Forward handover.

2. What is generic routing encapsulation?

Generic routing encapsulation (GRE) is an encapsulation scheme which supports other network protocols in addition to IP. It allows the encapsulation of packets of one protocol

3. Define COA.

The COA (care of address) defines the current location of the MN from an IP point of view. All IP packets sent to the MN are delivered to the COA, not directly to the IP address of the MN. Packet delivery toward the MN is done using the tunnel.

4. What is meant by Transparency?

Mobility should remain invisible for many higher layer Protocols and applications. The only affects of mobility should be a higher delay and lower bandwidth which are natural in the case of mobile networks.

5. What is Generic Routing encapsulation?

Generic Routing encapsulation (GRE) allows the encapsulation of packets of one protocol suite into the payload portion of a packet of another protocol suit.

6. What is Dynamic source Routing?

Dynamic Source Routing eliminates all periodic routing updates. If a node needs to discover a route, it broadcast a route request with a unique identifier and the destination address as parameters. Any node that receivers a route request gives a list of addresses representing a possible path on its way toward the destination.

7. Why is need of routing?

Routing is to find the path between source and destination and to forward the packets appropriately.

8. What are the two functions of the transport layer in the internet?

The two functions of the transport layer in the internet are check summing over user data and multiplexing/ demultiplexing of data from applications.

9. What is HTTP?

The Hypertext transfer protocol is a stateless, lightweight, application level protocol for data transfer between servers and clients. An HTTP transaction consists of an HTTP request issued by a client and an HTTP response from the server. Stateless means that all HTTP transactions independent of each other.

10. What is WAP?

Wireless application protocol(WAP) is a common effort of many companies and organizations to set up a framework for wireless and mobile web access using many different transport systems. Eg. GSM, GPRS, UMTS.

11. What is WMLBrowser?

WMLBrowser is a library that provides several functions typical for a browser, such as prev to go back one card or refresh to update the context of the user interface.