Unit 1: Introduction to Wireless Transmission

1. Which of the following is the advantage of wireless communication?

a. Interference

b. Mobility

c. Security

d. Heath concern

2. Connection without physical medium is called_____

a. Wireless connection

b. Connectionless communication

c. a and b

d. None

3. Select true sentence from given data.

a. Wireless communication used two wires to connect.

b. Wired communication used wire to connect.

c. Wireless communication is not feasible.

d. Wired communication has infrastructure less architecture.

4. Which of the following is right for wireless communication?

a. TV-Remote connection

b. Space-Radio Connection

c. Projector-Remote connection

d. All of above.

5. Connection without cable is called_____

a. Wireless connection

b. Wired connection

c. Contact

d. None

6. Select an application of wired communication.

a. Tv-Remote communication

b. Radar system

c. Radio system

d. None

7. Which of following is application wireless communication?

a. Bluetooth

b. Cordless Phones

c. a and b

d. None

8. Which of the following is example of wired communication?

a. WIFI

b. Wireless charger

c. Air pods

d. None

9. Select full form of VHF

a. Very high frequency

b. Very host famous

c. Very high fading

d. Very high formula

10. Select full form of UHF

a. Ultra host fading

b. Ultra high fading

c. Ultra high frequency

d. Ultra high formula

11. Physical representation of data is called_____

a. Frequency

b. Signal

c. Fading

d. None

12. Signal is a function of_____ and _____

a. Time and Time

b. Time and Speed

c. Time and Location

d. None

13. Which of the following is classification of signal?

a. Analog signal

b. Digital signal

c. One signal

d. a and b

14. Which of the following are representation of signal?

a. Amplitude

b. Frequency

c. Phase state

d. All of above

15. Sending and receiving electromagnetic wave for communication is working of _____

a.Signal

b. Antenna

c. Hub

d. None

16. Antenna radiates waves in_____

a. Radar

b. Space

c. Router

d. None

17. Equal radiation in all direction is called_____ antenna.

a. isotropic

b. omnidirectional

c. a and b

d. none

18. Antenna that radiates and receives energy equally well in all horizontal direction is called_____ antenna.

a. Isotropic

b. Omnidirectional

c. a and b

d. None

19. Fixed preferential transmission and reception directions can be used in _____ antenna.

a. Isotropic

b. Directional

c. a and b

d. None

20. TV antenna is an example of_____ antenna.

a. Isotropic

b. Directional

c. a and b

d. None

21. Grouping of 2 or more antennas to obtain radiating characteristics that cannot be obtained from a single element is called_____ antenna.

a. Directional

b. Omnidirectional

c. Phase array

d. none

22. Select type of signal range.

a. Propagation

b. Transmission

c. Signal

d. None

23. Which range has very low error rate?

a. Transmission

b. Interference

c. Detection

d. None

24. Which range has very high error rate?

a. Transmission

b. Interference

c. Detection

d. None

25. Which range has very low signal strength?

a. Transmission

b. Interference

c. Detection

d. None

26. Which range has very high signal strength?

a. Transmission

b. Interference

c. Detection

d. None

27. Select full form of LOS.

a. Line of solar

b. Lion of solar

c. Line of sight

d. None

28. Which wave has <2 MHz frequency?

a. Sky wave

b. Ground wave

c. Line of sight

d. None

29. Which wave has 2-30 MHz frequency?

a. Sky wave

b. Ground wave

c. Line of sight

d. None

30. Which wave has >30 MHz frequency?

a. Sky wave

b. Ground wave

c. Line of sight

d. None

31. Which wave is not type of wave?

a. Sky wave

b. Ground wave

c. Line of sight

d. None

32. Due to some obstacle, signal is_____

a. Turn left

b. Propagates

c. Turn right

d. None

33. Which of the following is not a propagation effect of signal?

a. Shadowing

b. Reflection

c. Warming

d. None

33. Which of the following is a propagation effect of signal?

a. Waving

b. Flying

c. Warming

d. Scattering

34. When signal is propagating at the edge it will scatted in different direction is called_____

a. Waving

b. Flying

c. Diffraction

d. Scattering

35. Scattered and diffraction are similar and it depends on signal_____

a. Power

b. Speed

c. Length

d. None

36. Movement of mobile of obstruction within propagation environment is called_____

a. Flow

b. Fading

c. Lying

D. Skiing

37. Large movement of mobile of obstruction within propagation environment is called_____ fading.

a. Slow

b. Long term

c. Large scale

d. All of above

38. Small movement of mobile of obstruction within propagation environment is called_____ fading.

a. Fast

b. Short term

c. Small scale

d. All of above

39. Multiple user share single medium with less interference is called_____

a. Multiplexing

b. Multipath

c. a and b

d. None

40. Give the full form of TDM.

a. Time division multiplexing

b. Time divide multipath

c. Time division multipath

d. Time divide multiplexing

41. If common medium is separating by frequency than it is called_____

a. FDM

b. SDM

c. TDM

d. CDM

42. If common medium is separating by speed than it is called_____

a. FDM

b. SDM

c. TDM

d. CDM

43. If common medium is separating by time than it is called_____

a. FDM

b. SDM

c. TDM

d. CDM

44. If common medium is separating by code than it is called_____

a. FDM

b. SDM

c. TDM

d. CDM

45. Which of following technology used wireless medium to communicate?

a. Bluetooth

b. Hub

c. Switch

d. None

46. Which of following technology used wired medium to communicate?

a. Bluetooth

b. Radar

c. Switch

d. Radio

47. Which layer is used in general model of wireless communication?

a. Physical

b. Network

c. Application

d. All of above

48. Which is not an example of frequency?

a. Low frequency

b. High frequency

c. Ultra violet

d. None

49. Which of the following is not characteristics of antenna?

a. Gain

b. Diversity

c. Efficiency

d. None

50. Which of the following is a characteristic of antenna?

a. Gain

b. Diversity

c. Efficiency

d. All

Unit 2: Modulation and Cellular Systems

1. Which of the following is disadvantage of wireless communication?

a. Speed

b. Cost

c. Mobility

d. None

2. Advantage of wireless communication is _____.

a. Speed

b. Interference

c. Interception

d. None

3. If signal is transmitting on constant frequency and someone interfere is called_____

a. Interception

b. Interference

c. Integrity

d. None

4. If signal is transmitting on constant frequency and someone intercept is called_____

a. Interception

b. Interference

c. Integrity

d. None

5. Which of the following is problem of wireless communication?

a. Interception

b. Interference

c. Integrity

d. All of above

6. Which method is used to reduce interference in wireless communication?

a. Interception

b. Interference

c. Spread spectrum

d. All

7. Which method is used to reduce interception in wireless communication?

a. interception

b. interference

c. spread spectrum

d. All

8. Spread the original message signal with the main transmitted signal is called_____

a. Interception

b. Interference

c. Spread spectrum

d. All

9. Which code is used to spread the signal in spread spectrum?

a. Spread

b. Spectrum

c. Spreading code

d. None

10. Which of following is type of spread spectrum?

a. FHSS

b. DSSS

c. a and b

d. None

11. Which of the following is advantage of spread spectrum?

a. Less energy

b. High noise

c. Low noise

d. None

12. Which of the following is not advantage of spread spectrum?

a. Less energy

b. Low noise

c. Low cross talk

d. None

13. _____can be occurred in spread spectrum as a pros.

a. Less energy

b. High noise

c. Difficult to jam signal

d. None

14. Which of the following give the better security in wireless communication?

a. Spread spectrum

b. Gate

c. Bridge

d. None

15. If user change the usage of frequency is concept of_____

a. FHSS

b. DSSS

c. a and b

d. None

16. Frequency can be change in some specific _____.

a. Gap

b. Time

c. a and b

d. None

17. Same frequency can be reused in _____

a. DSSS

b. FHSS

c. a and b

d. None

18. The amount of time spent on each frequency hop is called _____

a. Time zone

b. Dwell time

c. a and b

d. None

19. The frequencies of the data are hopped from one to another is called_____

a. DSSS

b. FHSS

c. a and b

d. None

20. Which of the following is type of FSHH?

a. fast FHSS

b. Slow FHSS

c. a and b

d. None

21. When user send data as an input to modulator and modulator send output as_____ in FHSS.

a. Narrowband signal

b. Same data

c. a and b

d. None

22. When narrowband signal used as input for another modulator then it used_____ in FHSS.

a. Security

b. Hopping sequence

c. X-or

d. None

23. In FHSS, data reached to the receiver then it did first operation_____

a. Demodulation

b. Modulation

c. a and b

d. None

24. When data reached to the demodulator and it used code is called_____

a. Hopping sequence

b. Security

c. a and b

d. None

25. Full form of FHSS.

a. Find hop secure sequence

b. Frequency hopping spread sequence

b. Frequency hopping spread spectrum

d. None

26. Code secure code is used in DSSS is called_____

a. Hopping sequence

b. Chipping code

c. Spreading

d. None

27. Which operation is used when data is operate with the chipping code in DSSS?

a. X-OR

b. AND

c. ADDITION

d. SUBSTRCTION

28. Which of the following is used integrator?

a. FHSS

b. DSSS

c. a and b

d. None

29. Each transmitter in cellular network is called_____

a. Base station

b. Resender

c. Gateway

d. None

30. Cellular network used _____

a. Lower power

b. High power

c. Long range

d. None

31. technology is developed for mobile radio telephone is called_____

a. Cellular network b. Vehicular network c. Router d. None

32. The coverage area of cellular network are divided into _____

a. Rows

b. Column

c. Cell

d. None

33. Each cell has its own_____

a. Tower

b. Antenna

c. Base station

d. all

34. Square cell has _____ neighbour.

a. Three

b. Two

c. Four

d. Five

35. Hexagon cell has _____ neighbor.

a. Four

b. Five

c. Six

d. Seven

36. Which of the following is the type of cellular network?

a. Square cell

b. Triangle cell

c. Pentagon cell

d. None

37. The process of converting data into radio waves by adding information to an electronic or optical carrier signal is called_____

a. Module

b. Demodulate

c. Modulation

d. None

38. Which of the following is not type of modulation?

a. Amplitude

b. Frequency

c. Phase

d. None

39. The amplitude of the carrier wave changes based on the message signal is called_____

a. Amplitude shift keying

b. Frequency shift keying

c. a and b

d. None

40. The frequency of the carrier wave is varied for each symbol in the digital data is called_____

a. Amplitude shift keying

b. Frequency shift keying

c. a and b

d. None

41. Changes the phase of the carrier for each symbol is called_____

a. Amplitude shift keying

b. Phase shift keying

c. a and b

d. None

42. Select full form of ASK.

a. Amplitude spread keying

b. Amplitude shift Keying

c. Arithmetic shift keying

d. Arithmetic spread keying

43. Select full form FSK.

a. Frequency shift keying

b. Frequency spread keying

c. Fantasy shift Keying

d. Fantasy shift keying

44. Select full form of PSK.

a. Phase spread keying

b. Phase shit keying

c. Phase shift keying

d. None

45. transmitting data by sending the data over multiple carriers is called_____

a. Multi-carrier modulation

b. Phase shift keying

c. Demodulation

d. None

46.Selct full form of MCM.

a. Multi carrier modulation

b. Multi cast modulation

c. Multiple carrier moment

d. None

47. Spreading code must be known to_____

a. Sender

b. Receiver

c. Intruder

d. a and b

48. Which of the following is disadvantage of cellular network?

a. High capacity

b. Robustness

c. Less transmission power

d. None

49. Which of the following is advantage of cellular network?

a. Infrastructure needed

b. Handover needed

c. a and b

d. None

50. Which cell is best for cellular network?

a. Square cell

b. Hexagon cell

c. Pentagon cell

d. Triangle cell

Unit 3:Mobile Network Layer

1. Select right option for DHCP protocol

a. DHCP is used for graphics

b. DHCP is used for Image

c. DHCP is used for networking

d. None

2. Full form of DHCP is

a. Dynamic hub control protocol

b. Dynamic hub configuration protocol

c. Dynamic host configuration protocol

d. None

3. Give full form of IP

a. Internet protocol

b. Information protocol

c. International protocol

d. None

4. Which protocol is used to provide IP address to connected device?

a. MIME

b. SMTP

c. DHCP

d. None

5. Which protocol is used to provide dynamic IP to the devices?

a. IP

b. DHCP

c. SMTP

d. MIME

6. What is Manet?

a. Protocol

b. Network

c. Rules

d. None

7. Full form of Manet is

a. Mobile ad node ethernet transfer

b. Mobile ad-hoc Network

c. Mobile ad host network

d. none

8. The collection of the mobile nodes for sharing the information without using any infrastructure is called_____

a. Manet

b. Ethernet

c. a and b

d. None

9. If there is a network which has no any predefined model Is called_____

a. Manet

b. Ethernet

c. a and b

d. None

10. Process of transfer the packets from source to destination through best path is called_____

a. Routing

B. Looping

c. a and b

d. None

11. Data is routed from one place to other is called_____

a. Routing

B. Looping

c. a and b

d. None

12. Source to destination packet is traveling using best smallest path is called_____

a. Routing

B. Looping

c. a and b

d. None

13. Full form of DSDV

a. Dynamic smart destination vector

b. Dynamic system distance vector

c. Dynamic sequence destination vector

d. Destination sequence distance vector

14. In which protocol routing information is periodically updated?

a. SMTP

b. MIME

c. DSDV

d. None

15. Which of the following is used to solve problem of looping in routing?

a. Routing

b. Sequence number

c. Time

d. None

16. Which of the following is used for loop freeness in routing?

a. Routing

b. Sequence number

c. Time

d. None

17. Which of the following is used to send data from source to destination?

a. Routing

b. Sending

c. Receiving

d. None

18. Which of the following is participant in routing process?

a. Sender

b. Receiving

c. Routing

d. None

19. Which information is needed for routing?

a. Packet

b. Destination address

c. a and b

d. None

20. Which of the following is must for packet transfer from source to destination?

a. Packet

b. Destination address

c. a and b

d. None

21. Which of the following is used as path finding and data sending protocol?

a. DSDV

b. DSR

c. AODV

d. All

22. Which of the following is not the routing protocol?

a. DSDV

b. DSR

c. AODV

d. None

23. Which of the following is the routing protocol?

a. SMTP

b. IP

c. DHCP

d. None

24. Which of the following is used to find route and maintain it?

a. DSDV

b. DHCP

c. AODV

d. a and c

25. What is the full form of DSR?

a. Distance vector source routing

b. Dynamic source routing

c. Distance source routing

d. None

26. Which of the following is proactive routing protocol?

A. DSDV

b. DSR

c. AODV

d. None

27. Which of the following is reactive routing protocol?

A. DSDV

b. DSR

c. SMTP

d. None

28. Select wrong protocol for routing.

a. Dynamic source routing

b. Dynamic host configuration protocol

c. Internet protocol

d. None

29. Select right protocol for routing.

a. SMTP

b. MIME

c. IP

d. None

30. Which message is used to find route?

A, Request

b. Route request

c. Text message

d. None

31. Full form of RReq is

A, Routing request

b. Route request

c. Rent request

d. None

32. Full form of RRep is

a. Routing reply

b. Route reply

c. Rent reply

d. None

33. When route is found then which message is used to track the route?

a. RReq

b.RRep

c. Beacon

d. None

34. Which operation is used in DSR protocol?

a. Route discovery

b. Path

c. Route

d. None

35. To maintain the route _____ message is used.

a. RReq

b. RRep

c. Beacon

d. None

36. Which of the following message is used to show path break in route?

a. RReq

b.RRep

c. RErr

d. None

37. Which of the following is used for routing metric?

a. Less distance

b. Routing

c. a and b

d. None

38. Which of the following is used for routing metric?

a. Hop count

b. Routing

c. a and b

d. None

39. Which of the following is not used for routing metric?

a. Maximum neighbor

b. Routing

c. a and b

d. None

40. Number of nodes are connected with each other and make _____

a. Cluster

b. Cluster node

c. a and b

d. None

41. The nodes in cluster are called_____

a. Cluster

b. Cluster node

c. a and b

d. None

42. A node in cluster which collect the data is called_____

a. Cluster

b. Cluster node

c. Cluster head

d. None

43. One cluster head send data to another cluster head and then that data is reach to base station is called_____

a. Network

b. Head

c. Routing

d. None

44. From one node to another node data is transfer and reached to the destination is called_____

a. Multi-hop routing b. Cluster c. a and b d. None

45. Which is best suitable routing protocol for routing?

a. AODV

b. SMTP

c. MIME

d. None

46. Which of the following protocol is used as a routing for geometric location?

a. Flat

b. Hierarchical

c. Geometric

d. None

47. What is full form of AODV protocol?

a. Ad hoc on-demand distance vector

b. Ad hoc off-demand destination vector

c. Ad hoc on-demand destination vector

d. Ad-hoc off—demand distance vector

48. which method id used to send RReq message?

a. Onecast

b. Broadcast

c. Mono cast

d. None

49. Where Manet can be used?

a. Mobile routing

b. Sleeping

c. a and b

d. None

50. In which protocol distance vector is used?

a. DSDV

b. DSR

c. AODV

d. None

Unit 4 Medium Access Control

1. MAC stands for _____.

a) Media Area Control
b) Memory Access Control
c) Memory Area Control
d) Media Access Control

2 Datalink layer divided into _____sub layers.

a. 2
b. 3
c. 4
d. 5

3 In _____each station sends a frame whenever it has a frame to send.

a. Pure ALOHA
b. Slotted ALOHA
c. Both a and b
d. Neither a or b

4 _____ requires that each station first listen to the medium before sending.

a. CSMA
b. FDMA
c. CDMA
d. MA

5 In _____, the available bandwidth is divided into frequency bands.

a. FDMA
b. TDMA
c. CDMA
d. None of the above

6 In _____, the stations use different codes to achieve multiple accesses.

a. FDMA
b. TDMA
c. CDMA
d. None of the above

7 The maximum throughput for pure ALOHA is _____ per cent.

a. 12.2
b. 18.4
c. 36.8
d. None of the above

8. In the _____ method, after the station finds the line idle, it sends its frame immediately. If the line is not idle, it continuously senses the line until it finds it idle.

a. Non persistent
b. 1-persistent
c. P-persistent
d. None of the above

9. In pure ALOHA, the vulnerable time is _____ the frame transmission time.

a. The same as
b. Two times
c. Three times

d. None of the above

10. The time interval in which frames can overlap.
    a. Continuous time
    b. Contention period
    c. Channel throughput
    d. Channel load

11. FDMA stands for _____.
    a. Frequency Division Multiple Access
    b. Frequency Division Medium Access
    c. Frequency Divide Medium Access
    d. Frequency Divide Multiplex Access
12. PRMA stands for _____.
    a) Packet Reservation Multiple Access
    b) Packet Registration Multiple Access
    c) Packet Reservation Medium Access
    d) Packet Registration Medium Access
13. _____ is a multiple-access method in which the available bandwidth of a link is shared in time, frequency, or through code, between different stations.

a. Random access
b. Controlled access
c. Channelization
d. None of the above

14. CDMA stands for _____.
    a. Code Division Multiple Access
    b. Code Divide Medium Access
    c. Code Division Medium Access
    d. Code Divide Modulation Access
15. ALOHA is divided into _____types
    a. Two
    b. Three
    c. Four
    d. Five
16. CSMA/CA avoids collision by
    a. Interframe space
    b. Contention Window
    c. Acknowledgement
    d. All of above
17. Guard band is

    a. The small unused bandwidth between the frequency channels to avoid interference
    b. The bandwidth allotted to the signal
    c. The channel spectrum
    d. The spectrum acquired by the noise between the signal
18. The advantages of FDMA over TDMA include

i. Division is simpler
ii. Propagation delays are eliminated
iii. Cheaper filters with less complicated logic functions
iv. Linearity

a. i ii iii correct
b. i and ii are correct
c. i and iv are correct
d. All four are correct

19. Which of these is not true for TDD?

a. TDD uses different time slots for transmission and reception paths

b. Single radio frequency can be used

c. Duplexer is required

d. It increases the battery life of mobile phones

20. The advantage of using SDMA over other spread spectrum technique is

a. Mobile station battery consumption is low
b. Reduced spectral efficiency
c. Increased spectral efficiency
d. Both a and c are correct

23 9. The bandwidth of FDMA channel is _____
a) Wide b) Narrow c) Large d) Zero
9. The bandwidth of FDMA channel is _____
a) Wide b) Narrow c) Large d) Zero
9. The bandwidth of FDMA channel is _____
a) Wide b) Narrow c) Large d) Zero
9. The bandwidth of FDMA channel is _____
a) Wide b) Narrow c) Large d) Zero
9. The bandwidth of FDMA channel is _____
a) Wide b) Narrow c) Large d) Zero

21. Bandwidth of FDMA channel is
a. Wide
b. Narrow
c. Large
d. Zero

24. Controlled Access Protocols

22. If the FDMA channel is not in use, it can be used by other users. State whether true or false.
a. True
b. False

23. _____ augments the CSMA algorithm to detect collision.

a) CSMA/CA
b) CSMA/CD
c) Either a or b
d) Both a and b

24. In _____, the sequences are generated using orthogonal codes such the walsh tables.
a. FDMA
b. TDMA
c. CDMA
d. None of the above

25. Pure ALOHA is _____.
a. Modulation technique
b. Multiple access technique
c. Random access technique
d. Spread spectrum technique

26. CSMA stands for _____.
a. Carrier Sense Multiple Access
b. Code Sense Multiple Access
c. Carrier Sense Modulation Access
d. Carry Sense Multiple Access

27. How many types of channelization protocols?
a. 2
b. 3
c. 4
d. 6

28. In the _____method, after the station finds the line idle it sends or refrain from sending based on the outcome of a random number generator. If the line is busy, it tries again.

a. Non persistent
b. 1-persistent
c. P-persistent
d. None of the above

29. In the _____method, a station that has a frame to send senses the line. If the line is idle, it sends immediately. If the line is not idle, it waits a random amount of time and then senses the line again.
a. Non persistent
b. 1-persistent
c. P-persistent
d. None of the above

30. The maximum throughput for slotted ALOHA is _____ per cent.
A) 36.8
B) 18.4
C) 12.2
D) None of the above

31. FDD stands for
a. Frequency Division Duplex

b. Frequency Derived Duplex
c. Frequency Division Duplication
d. First Division Duplex

32. For pure ALOHA protocol, the vulnerable period is _____ the packet duration.
a. Double
b. Equal
c. Ten times
d. Not equal
33. In _____ each station sends a frame whenever it has a frame to send.

a. Pure ALOHA
b. Slotted ALOHA
c. Both a and b
d. Neither a nor b

34. In _____, each station is forced to send only at the beginning of the time slot.

a. Pure ALOHA
b. Slotted ALOHA
c. Both a and b
d. Neither a nor b

35. In slotted ALOHA, the vulnerable time is _____ the frame transmission time.
a. The same as
b. Two times
c. Three times
d. None of the above

36. Categorized access methods into _____ groups.
a. 2
b. 3
c. 4
d. 5
37. DAMA stands for
a. Duplicate Assigned Multiple Access
b. Demand Assigned Multiple Access
c. Duplicate Assigned Medium Access
d. Demand Assigned Medium Access
38. In _____, each station transmits its data in its assigned time slot.
a. FDMA

b. TDMA

c. CDMA

d. None of the above

39. _____ is based on coding theory and uses sequences of numbers called chips.

a. FDMA

b. TDMA

c. CDMA

d. None of the above

40. In _____, a station monitors the medium after it sends a frame to see if the transmission was successful. If so, the station is finished. If, however, there is a collision, the frame is sent again.

a. CSMA/CD

b. CSMA/CA

c. Either a or b

d. Both a and b

41. In _____, collisions are avoided through the use of three strategies: the interframe space, the contention window, and acknowledgments.

a. CSMA/CD

b. CSMA/CA

c. Either a or b

d. Both a and b

42. TDD stands for
a. Time Division Duplex
b. Time Duplex Division
c. Tuple Division Duplex
d. Tuple Duplex Division

43. Station can sense the channel before use is called as

a. No carrier sense
b. Carrier sense
c. Station sense
d. No station sense

44. In _____, collision is high.
a. Pure aloha
b Slotted aloha
c. CSMA
d. MA

45. Exposed terminals cause _____.
a. Collision
b. Traffic
c. Unnecessary delay
d. Unreliability

46. MACA avoids the problem of _____.
a. Hidden terminal
b. Expose terminal
c. Both a and b
d. None of the above

47. Which one of following is not advantage of CDMA?
a. Bandwidth efficient
b. No coordination
c. Synchronization
d. Lower user data rate

48. MACA stands for _____
a. Multiple Access with Collision Avoidance
b. Medium Access with Collision Avoidance
c. Multiple Access with Control Avoidance
d. Medium Access with Control Avoidance

49. ISMA stands for
a. Inhibit Sense Multiple Access
b. Inherent Sense Multiple Access
c. Inherent Sense Medium Access
d. Inhibit Socket Multiple Access

50. In _____ the time is continuous.
a. Pure aloha
b. Slotted aloha
c. Both a and b
d. None of above

Unit 5 Global System for Mobile Communication

1. Which of the following does not come under the teleservices of GSM?
   a. Standard mobile telephony
   b. Mobile originated traffic
   c. Base originated traffic
   d. Packet switched traffic

2. Which one of these not a performance characteristics of GSM?
   a. Communication
   b. Total mobility
   c. Worldwide connectivity
   d. Low transmission quality
3. Who set the standards of GSM?
   a. ITU
   b. AT & T
   c. ETSI
   d. USDC
4. ____ manages the switching function in GSM.
   a. BSS
   b. NSS
   c. OSS
   d. MSC
5. GSM is no perfect system because
   a. No end-to-end encryption
   b. High complexity
   c. Several incompatibility
   d. All of the above

6. What is the full form of HLR?
   a. Home Location Register
   b. Home Location Request
   c. Head Location Register
   d. Head Locator Register

7. _____ supports the operation and maintenance of GSM.
   a. BSS
   b. NSS

c. OSS
d. MSC

8. GSM stands for _____.
   a. Global System for Mobile Connection
   b. Global System for Mobile Communications
   c. Global Special for Mobile Connection
   d. Groupe System for Mobile Connection
9. Which of the following does not come under subsystem of GSM architecture?
   a. BSS
   b. NSS
   c. OSS
   d. Channel
10. Which of the following subsystem provides radio transmission between mobile station and MSC?
    a. BSS
    b. NSS
    c. OSS
    d. BSC
11. Previously in 1980s, GSM stands for _____
    a. Global system for mobile
    b. Groupe special mobile
    c. Global special mobile
    d. Groupe system mobile
12. GSM offers
    a. Voice connection
    b. Data connections
    c. Short message service
    d. All of the above
13. 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
14. What is the data rate or speed offered by a GPRS connection?

a. 56-115 kbps
b. 9-256 kbps
c. 64-128 kbps
d. None of the above

15. Which types of services provided by GSM?
    a. Tele services
    b. Supplementary services
    c. Bearer services
    d. All of above
16. 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

17. GPRS stands for?
    a. General Packet Repair Service
    b. General Packet Radio Service
    c. Graphics Packet Radio Service
    d. None of the above

18. GPRS services belong to which generation?
    a. 1G
    b. 2G
    c. 3G
    d. 4G

19. Choose a correct abbreviation below.
    A) SGSN - Serving GPRS Support Node
    B) GGSN - Gateway GPRS Support Node
    C) IP - Internet Protocol
    D) All

20. Covering area of an MSC is also called ____?
    a. VLR
    b. HLR
    c. EIR
    d. AUC
21. In localization and calling MTC stands for _____
    a. Mobile Terminated Call
    b. Mobile Transfer Call
    c. Mobile Terminated Code
    d. Mobile Transfer Code
22. What is the name of the database that stores subscriber information under an MSC and his eligible services?
    a. MSC
    b. HLR
    c. EIR
    d. AuC

23. Usually, VLR contains a copy of data of _____ ?
    a. HLR
    b. EIR
    c. AuC
    d. None of the above
24. A GPRS Network is a part of ____ in GSM network.
    a. BTS

b. BSS
c. NSS
d. VLR

25. Which of the following is a security services offered by GSM?

a. Anonymity
b. Confidentiality
c. Access control and authentication
d. All of above

26. HSCSD stands for _____

a. High Speed Circuit Switched Data
b. Highly Secure Circuit Switched Data
c. High Scale Circuit Switched Data
d. High Speed Circuit Secure Data

27. GSM network is dividing into _____ subsystems.

a. 5
b. 4
c. 3
d. 2

28. GSM includes HLR and VLR databases. Their uses may be described as:

a. A VLR copies all relevant information for a user from the HLR every time a user moves from one cell to another.
b. Every time a user moves into a location area of a different MSC, all relevant user information is copied from the VLR to the HLR associated with the new MSC.
c. Every time a user moves into the location area of a different MSC, all relevant user information is copied from the HLR to the VLR associated with the new MSC.
d. The contents of HLR's and VLR's is always the same.

29. GSM is a digital cellular phone system using _____.

a. FDMA
b. TDMA
c. CDMA
d. both a and b

30. An acronym, BTS which forms part of a base station subsystem is?

a. Basic Transmission Signal
b. Broadband Throughput Station
c. Broadcast Transmission Standard
d. None of the above

31. Which of the following terms in a GSM network is where the details of a subscriber are kept?

a.HTR

b. HSR
c. HLR
d. None of the above

32. Which type of handover occurs when the mobile moves out of the coverage area of one BTS but into another controlled by the same BSC?
a. Intra-BTS handover
b. Inter-BTS Intra BSC handover
c. Inter-BSC handover
d. Inter-MSC handover
33. Which type of handover occurs when mobile remains attached to the same base station transceiver, but changes the channel or slot?
    a. Intra-BTS handover
    b. Inter-BTS Intra BSC handover
    c. Inter-BSC handover
    d. Inter-MSC handover
34. Mobile moves out of one cell to another it must be possible to retain the connection. The process by which this occurs is known as
    a. Handover or handoff
    b. Gateway
    c. Switching
    d. None of the above
35. _____ is used to manage power control in the BTS.
    a. Power control management protocol
    b. BTSM
    c. BSSAP
    d. None of the above

36**.** The component of a GSM network which provides functionality needed to handle a mobile subscriber, such as registration, authentication, location updating, handovers etc is:

a. Mobile services Switching Center (MSC)
b. Subscriber Identity Module (SIM)
c. Home Location Register (HLR)
d. None of the above

37**.**The _____are implemented as stand-alone nodes

a. AUC
b. EIR
c. Both a & b
d. None of the above

38**.** The _____ is a database that contains information about the identity of mobile

equipment that prevents calls from stolen, unauthorized, or defective mobile stations.
a. EIR
b. HLR
c. AUC
d. XME

39**.** The _____ protects network operators from different types of fraud found in today's cellular world.

a. EIR
b. AUC
c. XME
d. SMSC

4**0.** Which of these performs such functions as toll ticketing, network interfacing, common channel signaling?
a. MSC
b. VLR
c. HLR
d. AUC

41. Location area is an area covered by _____.
a) BTS
b) BSC
c) MSC
d) Operator

ans: A
42. SIM stands for
a. Subscription Identity Module
b. Subscription Identity Model
c. Subsystem Identity Model
d. Subscription Identity Mode

43. BTS connected to MSC via the _____
a. BSC
b. BSS
c. OSS
d. MSC
44. Connection between the RSS and the NSS via the _____
a. BSC
b. BSS
c. OSS
d. MSC

45. _____ basically manages the BTSs.
a. BSC
b. BSS
c. MS
d. MT

46. PLMN stands
a. Public Land Mobile Network
b. Public LAN Mobility Network
c. Public Land Mobility Network
c. Public LAN Mobile Network

47. Which of these are performance characteristics of GSM?
   a. Communication
   b. High transmission quality
   c. Total mobility
   d. All of above
48. Which of these is not service domain?
a. Bearer services
b. Tele Services
c. Supplementary Services
d. Financial services
49. How many types of GSM handover?
a. 4
b. 3
c. 5
d. 6
50. GPRS network elements are

   a. SGSN
   b. GGSN
   c. GSSN
   d. Both a and b

Unit 6 Satellite Systems

1. Repeaters inside communications satellites are known as _____
   a. Transceivers
   b. Transponders
   c. Transducers
   d. TWT

2. A helical antenna is used for satellite tracking because of _____
   a. Circular polarization
   b. Maneuverability
   c. Beamwidth
   d. Gain

3. _____ is the geographical representation of a satellite antenna radiation pattern.
   a. Footprint
   b. Spot
   c. Earth
   d. Region
4. _____ detects the satellite signal relayed from the feed and converts it to an electric current, amplifies and lowers its frequency.
   a. Horn antenna
   b. LNA
   c. Satellite receiver
   d. Satellite dish
5. A satellite signal transmitted from a satellite transponder to earth's station is _____
   a. Uplink
   b. Downlink
   c. Terrestrial
   d. Earthbound
6. The satellite is accelerating as it orbits the earth.
   a. True
   b. False
7. The angle between the line from the earth station's antenna to the satellite and the line between the earth station's antenna and the earth's horizon is called as _____
   a. Angle of inclination
   b. Angle of elevation

c. Apogee angle
d. LOS angle

8. _____ is a loss of power of a satellite downlink signal due to earth's atmosphere.
   a. Atmospheric loss
   b. Path loss
   c. Radiation loss
   d. RFI
9. A satellite battery has more power but lighter _____
   a. Lithium
   b. Leclanche
   c. Hydrogen
   d. Magnesium
10. The downlink frequency is lower than the uplink frequency.
    a. True
    b. False
11. The transmitter-receiver combination in the satellite is known as a _____
    a. Relay
    b. Repeater
    c. Transponder
    d. Duplexer
12. What is the reason for carrying multiple transponders in a satellite?
    a. More number of operating channel
    b. Better reception
    c. More gain
    d. Redundancy
13. INTELSAT stands for _____
    a. Intel Satellite
    b. International Telephone Satellite
    c. International Telecommunications Satellite
    d. International Satellite
14. The frequency of Ku band for satellite communications is _____
    a. 6/4 GHz
    b. 14/11 GHz
    c. 12/14 GHz
    d. 4/8 GHz
15. The satellite that is used as a relay to extend communication distance is called as _____
    a. Relay satellites
    b. Communication satellites
    c. Repeater satellites
    d. Geosynchronous satellites
16. What is the reason for shifting from C band to Ku band in satellite communication?
    a. Lesser attenuation
    b. Less power requirements
    c. More bandwidth
    d. Overcrowding

17. Which of the following bands cannot be used for satellite communication?
    a. MF
    b. Ku
    c. X
    d. C
18. Why are techniques like frequency reuse and spatial isolation carried out?
    a. Reduce traffic load
    b. More gain
    c. High speed
    d. Error detection
19. Why are VHF, UHF, and microwave signals used in satellite communication?
    a. More bandwidth
    b. More spectrum space
    c. Are not diffracted by the ionosphere
    d. Economically viable
20. Which technique uses spot beam antennas to divide the area covered by the satellite into smaller segments?
    a. Spatial isolation
    b. Frequency reuse
    c. Multiplexing
    d. Modulation

21. What is application of satellite systems?
a. Whether forecasting
b. Terrestrial communication
c. Point to point communication
d. None of the above

22. The communication going from ground to a satellite it is called
a. Uplink
b. Downlink
c. Terrestrial
d. Earthbound

23. Which of followings altitude of satellites?
a. GEO
b. LEO
c. MEO
d. All of the above

24. Which technique uses two different antennas to reduce traffic on the same frequency?
    a. Spatial isolation
    b. Frequency reuse
    c. Multiplexing
    d. Modulation
25. Which satellites have almost a distance of 36,000 km to the earth.
    a. GEO
    b. LEO

c. MEO
d. All of the above

26. For an elliptical orbit?

a) 1<e<0
b) e=0
c) e=1
d) None of the above

27. HEO stands for
    a. Highly Elliptical Orbit
    b. High Equally Orbit
    c. Highly Equally Orbit
    d. Highly Exchange Orbit

28. Which of these is disadvantage of MEO?
    a. Higher transmission power
    b. Complex design
    c. High completion rate
    d. Non of the above

29.MUL stands for
a. Mobile User Link
b. Mobile User Linkage
c. Mobile User Location
d. Mobile User Localization

30. Any object that revolves around a larger object in space is called a
a. Satellite.
b. Mobile
c. Cell Tower
d. Network

31 A satellite travels in a special path, called its
a. Periphery
b. Orbit
c. Radius
d. Diameter

32 _____is the frequency at which ground station is communicating with satellite
a. Down link frequency
b. Up link frequency
c. Next link frequency
d. Forward link frequency

33. The satellite transponder converts the signal and sends it down to the second earth station. This frequency is called a
a. Down link frequency
b. Up link frequency
c. Next link frequency
d. Forward link frequency

34 How many altitude of satellites?
a. 3

b. 4
c. 2
d. 1
35 Apogee?
a. The point farthest from earth
b. The point nearest from earth
c. The point smallest from earth
d. None of the above
36. What is full form of GEO?
A) Geostationary orbit
B) Geostandard orbit
C) Geology Surface Orbit
D) Geology Stationary Orbit
37 All radio and TV, whether satellite etc, are launched in which type of orbit
a. GEO
b. LEO
c. MEO
d. All of above

38. Which type of orbit has disadvantage- "These satellites cannot be used for small mobile phones."
a. GEO
b. LEO
c. MEO
d. All of the above

39 LEO satellites operate at a distance of about_____km?
a. 500-1500 km
b. 1500- 2000 km
c. 200- 500 km
d. 100 – 200 km
40 How many at least satellites in LEO orbit, if it is global coverage.
a. 50-200
b. 1000-5000
c. 500-1500
d. 5-10
41 LEO stands for:
a. Least earth orbit
b. Less earth orbit
c. Low earth object
d. Low earth orbit
42. Which type of orbit has very short life time of 5-8 years?
a. GEO
b. LEO
c. MEO
d. All of the above

43. Which type of orbit is made for satellites that do not revolve in circular orbits, only a very few satellite are operating in this orbit?
a. GEO
b. LEO
c. MEO
d. HEO
44In Localization, Gateway of satellite system maintains how many registers?
a. 3
b. 4
c. 5
d. 6
45 Select proper full form for SUMR
a. Satellite unified mapping replay
b. Satellite user measure register
c. Satellite user mapping register
d. Satellite unified mapping register
46 In Handover of Satellite, Hanover from one spot beam to another is known as _____
a. Inter satellite handover
b. Intra satellite handover
c. Gateway satellite handover
d. Inter system handover
47 MEO acronym for
a. Maximum Earth Object
b. Minimum Earth Orbit
c. Medium Earth Orbit
d. Medium earth object
48. Which of following one register stores the current position of satellites and a mapping of each user to the current satellite through which communication with a user is possible?
a. Satellite unified mapping register
b. Satellite user measure register
c. Satellite user mapping register
d. Satellite unified mapping register
49 In Concept of handover of in satellite system, Hanover from satellite network to a terrestrial cellular network is called which type of handover?
a. Inter satellite handover
b. Intra satellite handover
c. Gateway satellite handover
d. Inter system handover
50 Which satellite system can trade high transmission quality for handover frequency?
a. Inter satellite handover
b. Intra satellite handover
c. Gateway satellite handover
d. Inter system handover