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Time taken 1 hour 6 mins

Question **1**

Complete

Marked out of 1.00

Which of the statement is incorrect among the following

- ☒ a. The A5 algorithm is used to provide the scrambling for the 114 coded data bits sent in each time slot.
- ☐ b. All of these
- ☐ c. A3 is a ciphering algorithm used to provide scrambling of coded data bits but A5 is not an ciphering algorithm
- ☐ d. The A3 ciphering algorithm is used to authenticate each mobile by verifying the user passcode within the SIM cryptographic key.

Question **2**

Complete

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What is the LTE technology used for VoLTE (Voice over LTE)?

- ☐ a. None of these
- ☐ b. Circuit-switched fallback (CSFB)
- ☐ c. Single Radio Voice Call Continuity (SRVCC)
- ☒ d. Voice over IP (VoIP)

Question **3**

Complete

Marked out of 1.00

Which of the following is not a component of the UMTS core network?

- ☐ a. Base Transceiver Station (BTS)
- ☒ b. Gateway GPRS Support Node (GGSN)
- ☐ c. Home Location Register (HLR)
- ☐ d. Serving GPRS Support Node (SGSN)

Question **4**

Complete

Marked out of 1.00

If a user is in a voice call and also want to use his/her data connection uninterruptedly then which network will be preferred?

- ☒ a. VoLTE
- ☐ b. None of these
- ☐ c. LTE

Question **5**

Complete

Marked out of 1.00

Which of the following statement is incorrect

- ☐ a. None of these
- ☒ b. In OFDM (Orthogonal Frequency Division Multiplexing), the PARP (Peak to average power ratio) is less.
- ☐ c. In OFDM (Orthogonal Frequency Division Multiplexing), the ICI (Inter-carrier-Interference) and ISI (Inter-Symbol Interference) problem is less.
- ☐ d. OFDM (Orthogonal Frequency Division Multiplexing) provides a high spectral efficiency and data rate.

Question **6**

Complete

Marked out of 1.00

Which entity in the GPRS architecture is responsible for the mobility management of users?

- ☐ a. Base Transceiver Station (BTS)
- ☒ b. Serving GPRS Support Node (SGSN)
- ☐ c. Gateway GPRS Support Node (GGSN)
- ☐ d. Mobile Station (MS)

Question **7**

Complete

Marked out of 1.00

What is the typical communication technique between cluster heads and the base station in LEACH?

- ☐ a. Time division multiple access (TDMA)
- ☒ b. Code division multiple access (CDMA)
- ☐ c. Spatial division multiple access (SDMA)
- ☐ d. Frequency division multiple access (FDMA)

Question **8**

Complete

Marked out of 1.00

For a roaming user who is visiting a new MSC, the IMSI (International Mobile Subscriber Identity) will be temporarily

- ☐ a. AUC (Authentication Center)
- ☒ b. VLR (Visitor Location Register)
- ☐ c. None of these
- ☐ d. HLR (Home Location Register)

Question **9**

Complete

Marked out of 1.00

Which of the following is a characteristic of MANET (Mobile Ad hoc Network)?

- ☒ a. Fixed network infrastructure
- ☐ b. Centralized control
- ☐ c. Mobility of nodes
- ☐ d. High data throughput

Question **10**

Complete

Marked out of 1.00

An unauthorized access of information from a wireless device through a Bluetooth connection is called _____

- ☐ a. None of these
- ☐ b. Bluestring
- ☐ c. Blueprint
- ☒ d. Bluesnarfing

Question **11**

Complete

Marked out of 1.00

What is the primary advantage of GPRS compared to traditional GSM?

- ☐ a. Higher voice quality
- ☒ b. Faster data transmission
- ☐ c. Longer battery life
- ☐ d. Greater coverage range

Question **12**

Complete

Marked out of 1.00

In MACA protocol, a neighboring node near the sender which receives RTS (request to send) packet

- ☐ a. will transmit RTS-CTS packets as per the requirements
- ☒ b. will not transmit till it receives the data packet
- ☐ c. will delay the transmission for long enough time so that the sender could receive the CTS packet from the destination
- ☐ d. will delay the transmission it receives the CTS packet

Question **13**

Complete

Marked out of 1.00

Determine the distance between nearest co-channel cells of a cellular system for $i = 1, j = 2$ and cell radius 2 m

- ☐ a. 4.59
- ☒ b. 9.16
- ☐ c. 7.75
- ☐ d. 10.00

Question **14**

Complete

Marked out of 1.00

The barcode needs Line of Sight (LoS) communication to be scanned by the barcode reader?

- ☐ a. False
- ☒ b. True

Question **15**

Complete

Marked out of 1.00

What is the maximum number of timeslots used for GPRS in the GSM frame structure?

- ☐ a. 4
- ☒ b. 8
- ☐ c. 16
- ☐ d. 12

Question **16**

Complete

Marked out of 1.00

Find the value of frequency reuse factor Q of a cellular system for $i = 0, j = 2$

- ☒ a. 3.46
- ☐ b. 4.58
- ☐ c. 6.25
- ☐ d. 5.75

Question **17**

Complete

Marked out of 1.00

In a dense urban environment, path loss exponent $\eta = 3$ and there are six number of co-channel cells in cellular system. Determine the smallest cluster size needed to maintain this minimum required signal to interference ratio is **12.05 dB**.

- ☐ a. 4
- ☒ b. 3
- ☐ c. 1
- ☐ d. 7

Question **18**

Complete

Marked out of 1.00

What is full form of UMTS?

- ☐ a. Universal Mobile Telecommunication Server
- ☐ b. Universal Mobile Telephonic System
- ☐ c. Universal Mobile Telephonic Server
- ☒ d. Universal Mobile Telecommunications System

Question **19**

Complete

Marked out of 1.00

What is the typical communication pattern between cluster heads and the base station in LEACH?

- ☒ a. Multicast
- ☐ b. All of these
- ☐ c. Unicast
- ☐ d. Broadcast

Question **20**

Complete

Marked out of 1.00

What is the primary difference between 4G LTE and 4G VoLTE networks?

- ☒ a. LTE provides higher data speeds, while VoLTE provides better voice quality
- ☐ b. LTE operates on different frequency bands than VoLTE
- ☐ c. LTE focuses on data transmission, while VoLTE focuses on voice calls
- ☐ d. LTE uses circuit-switched technology, while VoLTE uses packet-switched technology

Question **21**

Complete

Marked out of 1.00

How does OFDM mitigate the effects of frequency-selective fading?

- ☐ a. By using differential encoding
- ☐ b. By utilizing cyclic prefix
- ☐ c. By employing error correction coding
- ☒ d. By employing frequency-hopping

Question **22**

Complete

Marked out of 1.00

In a closed room environment with several scattered objects, a signal is going to fade due to

- ☒ a. Small scale fading
- ☐ b. Both small and large scale fading
- ☐ c. Large scale fading
- ☐ d. None of these

Question **23**

Complete

Marked out of 1.00

The Signaling Correction Control Part (SS7) protocol supports the interface between the BSC and MSC.

- ☒ a. True
- ☐ b. False

Question **24**

Complete

Marked out of 1.00

What is the use of an Radio Frequency Identifier module?

- ☒ a. Object Identification
- ☐ b. To provide 3G Connectivity
- ☐ c. To measure the Wi-Fi strength
- ☐ d. To monitor temperature

Question **25**

Complete

Marked out of 1.00

In cellular system, neighboring stations are assigned different group of channels to

- ☒ a. minimize interference
- ☐ b. maximize capacity of each cell
- ☐ c. maximize throughput
- ☐ d. minimize area coverage

Question **26**

Complete

Marked out of 1.00

An Radio Frequency Identifier (RFID) system, consists of how many components

- ☒ a. Three
- ☐ b. One
- ☐ c. Two
- ☐ d. Four

Question **27**

Complete

Marked out of 1.00

Among the following which is not a part of Base Station Subsystem (BSS)

- ☐ a. Base Station Controller (BSC)
- ☐ b. Mobile Station (MS)
- ☐ c. Base Transceiver Station (BTS)
- ☒ d. Mobile Switching Centre (MSC)

Question **28**

Complete

Marked out of 1.00

In MAHO, what does the mobile station (MS) measure to determine neighboring cells?

- ☒ a. Received signal strength indicator (RSSI)
- ☐ b. Carrier frequency offset
- ☐ c. Timing advance
- ☐ d. Transmission power

Question **29**

Complete

Marked out of 1.00

The interface between the UTRAN (UMTS Terrestrial Radio Access Network) and the CN (Core Network) is

- ☐ a. lub interface
- ☒ b. lu interface
- ☐ c. lur interface
- ☐ d. None of these

Question **30**

Complete

Marked out of 1.00

In an AMPS cellular operator, there are 355 channels of 33 KHz each in a bandwidth of 12.5 MHz. If a narrowband system is used with frame duration 40 ms, with 8 time slots per frame, duration of time slot that carries data calculate the spectral efficiency of the TDMA system.

- ☐ a. 80%
- ☒ b. 94%
- ☐ c. 100%
- ☐ d. None of these

Question **31**

Complete

Marked out of 1.00

Which of the following statement is incorrect?

- ☐ a. In hard handoff, the existing connection with the Base Station (BS) must be broken before establishing a connection with a new BS.
- ☒ b. In hard handoff, the mobile unit simultaneously remain connected to more than one Base Station (BS).
- ☐ c. In soft handoff, the existing connection with the Base Station (BS) must be broken before establishing a connection with a new BS.
- ☐ d. In soft handoff, a new connection is established before the old one is released.

Question **32**

Complete

Marked out of 1.00

The uplink and downlink frequency bands of cellular GSM system are

- ☐ a. Uplink 1710-1785 MHz, Downlink 1805-1880 MHz
- ☐ b. None of these
- ☒ c. Uplink 890-915 MHz, Downlink 935-960 MHz
- ☐ d. Uplink 935-960 MHz, Downlink 890-915 MHz

Question **33**

Complete

Marked out of 1.00

In LEACH, what technique is used to reduce energy consumption during data transmission?

- ☐ a. Spatial division multiple access (SDMA)
- ☒ b. Frequency division multiple access (FDMA)
- ☐ c. Time division multiple access (TDMA)
- ☐ d. Code division multiple access (CDMA)

Question **34**

Complete

Marked out of 1.00

Which of the following statement is incorrect about microcell zone concept?

- ☒ a. More number of handoffs
- ☐ b. No loss in trunking efficiency
- ☐ c. Reduced interference
- ☐ d. Increase in capacity

Question **35**

Complete

Marked out of 1.00

In OFDM (Orthogonal Frequency Division Multiplexing), a set of different subcarriers overlapping in frequency domain subcarriers are

- ☐ a. designed to be in $\pm 135^\circ$ phase shift with each other.
- ☐ b. designed to be in $\pm 180^\circ$ phase shift with each other.
- ☒ c. designed to be in $\pm 90^\circ$ phase shift with each other
- ☐ d. None of these

Question **36**

Complete

Marked out of 1.00

If the distance between co-channel cells are D and the cell radius is R , then the co-channel reuse ratio is given by

- ☐ a. $D \cdot R$
- ☐ b. D^2/R
- ☒ c. D/R
- ☐ d. D/R^2

Question **37**

Complete

Marked out of 1.00

Among the following which is not a part of Network Switching Subsystem (NSS)

- ☐ a. Operation Support Subsystem (OSS)
- ☒ b. Base Transceiver Station (BTS)
- ☐ c. Authentication Center (AUC)
- ☐ d. Mobile Switching Centre (MSC)

Question **38**

Complete

Marked out of 1.00

The number of sensor nodes in an Adhoc network is more than in a Wireless Sensor Network

- ☐ a. True
- ☒ b. False

Question **39**

Complete

Marked out of 1.00

Which of the statement is correct among the following

- ☐ a. UTMS networks has a packet switched element.
- ☐ b. None of these
- ☒ c. UTMS networks has both circuit and packet switched element.
- ☐ d. UTMS networks has a circuit switched element.

Question **40**

Complete

Marked out of 1.00

Which of the following is responsible for the transmission and reception of radio signals in UTRAN?

- ☐ a. Serving GPRS Support Node (SGSN)
- ☐ b. Node B
- ☒ c. Radio Network Controller (RNC)
- ☐ d. Home Location Register (HLR)

Question **41**

Complete

Marked out of 1.00

Determine the signal-to-interference ratio (SIR) in dB, for path loss $\eta = 3$ and $i = 2$, $j = 1$. There are six co-channel cells in the system.

- ☐ a. 16.03 dB
- ☒ b. 12.05 dB
- ☐ c. 4.5 dB
- ☐ d. None of these

Question **42**

Complete

Marked out of 1.00

The 5G technology uses

- ☒ a. Millimeter wave
- ☐ b. None of these
- ☐ c. Microwave
- ☐ d. Infrared wave

Question **43**

Complete

Marked out of 1.00

Why is a cyclic prefix required in Orthogonal Frequency Division Multiplexing?

- ☒ a. To help overcome Inter Symbol Interference (ISI)
- ☐ b. None of these
- ☐ c. To ensure symbol time is an integer number
- ☐ d. To maintain orthogonality

Question **44**

Complete

Marked out of 1.00

Determine the capacity of a cellular system, with cluster size $i = 1, j = 1$ where each cell is allocated a group of 60 channels. The frequency reuse factor $M = 6$.

- ☐ a. 1680
- ☒ b. 1080
- ☐ c. None of these
- ☐ d. 720

Question **45**

Complete

Marked out of 1.00

Among them which one is not a multicarrier modulation technique

- ☐ a. GFDM (Generalized Frequency Division Multiplexing)
- ☐ b. OFDM (Orthogonal Frequency Division Multiplexing)
- ☒ c. CDMA (Code Division Multiple Access)
- ☐ d. None of these

Question **46**

Complete

Marked out of 1.00

In the link design analysis, the received power is not a function of

- ☐ a. Antenna gain
- ☒ b. Doppler shift
- ☐ c. Transmitter power
- ☐ d. Path loss

Question **47**

Complete

Marked out of 1.00

What frequency band is commonly used for UMTS deployments?

- ☒ a. 2100 MHz
- ☐ b. 1800 MHz
- ☐ c. 800 MHz
- ☐ d. 2600 MHz

Question **48**

Complete

Marked out of 1.00

Which multiple access technology is used in LTE?

- ☒ a. OFDMA
- ☐ b. TDMA
- ☐ c. FDMA
- ☐ d. CDMA

Question **49**

Complete

Marked out of 1.00

In an AMPS cellular system, is allocated with 12.5 MHz for each simplex channel, the guard band at the two edges of band is 6 KHz, and the channel spacing for each user is 25 KHz. Find the total number of channels available in the FD the total numbers of users can be supported by the system.

- ☒ a. 500 channels, 500 users
- ☐ b. 250 channels, 500 users
- ☐ c. 500 channels, 250 users
- ☐ d. 250 channels, 250 users

Question **50**

Complete

Marked out of 1.00

What is a cluster in cellular system?

- ☐ a. A small geographic area
- ☐ b. A group of subscribers
- ☐ c. A large group of mobile systems
- ☒ d. A group of cells

Question **51**

Complete

Marked out of 1.00

The uplink and downlink frequency channels of GSM are separated by

- ☐ a. None of these
- ☒ b. 45 MHz
- ☐ c. 50 MHz
- ☐ d. 25 MHz

Question **52**

Complete

Marked out of 1.00

A spectrum of 30 MHz is allocated to a cellular system which uses two 25 KHz simplex channels to provide full duplex. What is the number of channels available per cell for 3 cell reuse factor?

- ☐ a. None of these
- ☐ b. 300 channels
- ☒ c. 200 channels
- ☐ d. 150 channels

Question **53**

Complete

Marked out of 1.00

The Adhoc network is a centralized type of network

- ☐ a. True
- ☒ b. False

Question **54**

Complete

Marked out of 1.00

What is the purpose of the Base Station Controller (BSC) in GSM?

- ☐ a. Processing billing information
- ☒ b. Managing handovers between cells
- ☐ c. Encoding voice signals
- ☐ d. Providing Internet connectivity

Question **55**

Complete

Marked out of 1.00

What is the typical communication technique between cluster heads and the cluster nodes in LEACH?

- ☒ a. Code division multiple access (CDMA)
- ☐ b. Frequency division multiple access (FDMA)
- ☐ c. Spatial division multiple access (SDMA)
- ☐ d. Time division multiple access (TDMA)

Question **56**

Complete

Marked out of 1.00

The coverage area of a cellular system is 2400 sq km. Each hexagonal cell having a radius of 4.806 km. There are total channels allocated for the cellular system. Calculate the system capacity (**C**) for cluster size **N** = 4.

- ☐ a. 5000
- ☐ b. 4000
- ☒ c. 1600
- ☐ d. 1000

Question **57**

Complete

Marked out of 1.00

In Orthogonal Frequency Division Multiplexing, the guard interval is provided to

- ☐ a. To maintain orthogonality
- ☐ b. To attain high symbol rate
- ☐ c. None of these
- ☒ d. To eliminate Inter Symbol Interference (ISI)

Question **58**

Complete

Marked out of 1.00

A network of five mobile phones for data sharing is created using Bluetooth, what is the operating frequency of this network?

- ☐ a. 200 MHz
- ☒ b. 2.4 GHz
- ☐ c. None of these
- ☐ d. 5 GHz

Question **59**

Complete

Marked out of 1.00

An Radio Frequency Identifier (RFID) reader, consists of how many components?

- ☐ a. One
- ☒ b. Three
- ☐ c. Two
- ☐ d. Four

Question **60**

Complete

Marked out of 1.00

What defines an Ad-hoc network?

- ☐ a. A network with a fixed topology
- ☒ b. A network that operates without any infrastructure
- ☐ c. A network that relies solely on wired connections
- ☐ d. A network with centralized control

Question **61**

Complete

Marked out of 1.00

A spectrum of 60 MHz is allocated to a wireless cellular system which uses 50 KHz of duplex channel for communication. For cluster size $N = 7$ and replication factor $M = 4$, calculate the total capacity offered by the cellular system.

- ☐ a. 4200
- ☐ b. 4400
- ☒ c. 4800
- ☐ d. None of these

Question **62**

Complete

Marked out of 1.00

Wireless networks are same as computer networks, that uses radio frequency channels as their _____ communication.

- ☐ a. CDMA
- ☐ b. Media access control
- ☒ c. Physical media
- ☐ d. TDMA

Question **63**

Complete

Marked out of 1.00

The interface between an mobile user and its nearest base transceiver station is

- ☐ a. A Interface
- ☐ b. Abis Interface
- ☒ c. Air Interface
- ☐ d. None of these

Question **64**

Complete

Marked out of 1.00

Which feature of GPRS enables more efficient use of network resources compared to traditional GSM?

- ☐ a. Voice call prioritization
- ☐ b. Circuit-switched data transmission
- ☒ c. Always-on connectivity
- ☐ d. Dedicated communication paths for data transfer

Question **65**

Complete

Marked out of 1.00

Why the shape of cell in a cellular system is hexagonal not circle?

- ☐ a. Complex design
- ☐ b. None of these
- ☐ c. Omni directionality
- ☒ d. Overlapping regions or gaps are left

Question **66**

Complete

Marked out of 1.00

The Radio Frequency Identifier tag needs Line of Sight (LoS) communication to be scanned by the Radio Frequency I

- ☐ a. True
- ☒ b. False

Question **67**

Complete

Marked out of 1.00

What is the purpose of the guard interval in OFDM?

- ☐ a. To protect against frequency-selective fading
- ☒ b. To guard against Inter Symbol Interference (ISI)
- ☐ c. To increase the data rate
- ☐ d. To provide security

Question **68**

Complete

Marked out of 1.00

Which of the statement is incorrect among the following

- ☒ a. UTMS networks has both circuit and packet switched element.
- ☐ b. UTMS networks has a circuit switched element.
- ☐ c. None of these
- ☐ d. UTMS networks has a circuit switched element.

Question **69**

Complete

Marked out of 1.00

What is the primary advantage of OFDM in wireless communication systems?

- ☒ a. Reduced power consumption
- ☐ b. Increased spectral efficiency
- ☐ c. Lower latency
- ☐ d. Simplified receiver design

Question **70**

Complete

Marked out of 1.00

Which one of the following statement is correct?

In hidden terminal problem,

- ☒ a. Two sender nodes are not in the communication range of each other
- ☐ b. Two sender nodes are in the communication range of each other
- ☐ c. None of these
- ☐ d. Hidden terminal problem is independent of node's communication range

Question **71**

Complete

Marked out of 1.00

Which of the following technologies is essential for VoLTE operation on LTE networks?

- ☐ a. IMS (IP Multimedia Subsystem)
- ☒ b. OFDM (Orthogonal Frequency Division Multiplexing)
- ☐ c. MIMO (Multiple Input Multiple Output)
- ☐ d. Carrier Aggregation

Question **72**

Complete

Marked out of 1.00

What type of network topology does LEACH create in wireless sensor networks?

- ☐ a. Ring
- ☒ b. Clustered
- ☐ c. Star
- ☐ d. Mesh

Question **73**

Complete

Marked out of 1.00

In a MACA protocol, a neighbor node near the receiver upon hearing the CTS (clear to send) packet

- ☒ a. may initiates its data transmission process as per the requirement
- ☐ b. All of these
- ☒ c. will send RTS (request to send) packet to the transmitter/sender
- ☐ d. will refrain from its transmission till the receiver receives the entire data packet

Question **74**

Complete

Marked out of 1.00

The frequency range of IEEE 802.11b standard is

- ☐ a. 5 GHz
- ☐ b. 2.4 Gbps
- ☐ c. 5 Gbps
- ☒ d. 2.4 GHz

Question **75**

Complete

Marked out of 1.00

In the link design analysis the power received path loss is not a function of

- ☐ a. Distance between the transmitter and receiver
- ☒ b. None of these
- ☐ c. Antenna Gain
- ☐ d. Transmitter power

Question **76**

Complete

Marked out of 1.00

Which of the following is not a phase in the LEACH protocol?

- ☐ a. Steady-state phase
- ☐ b. Setup phase
- ☒ c. Data collection phase
- ☐ d. Cluster formation phase

Question **77**

Complete

Marked out of 1.00

What parameter in LEACH determines the probability of a node becoming a cluster head?

- ☒ a. All of these
- ☐ b. Transmission power
- ☐ c. Residual energy of a node
- ☐ d. Node density

Question **78**

Complete

Marked out of 1.00

Which one of the following is not a characteristic of ADHOC network?

- ☐ a. Dynamic changing topology
- ☐ b. Energy-constrained
- ☒ c. Fixed infrastructure
- ☐ d. No fixed infrastructure

Question **79**

Complete

Marked out of 1.00

GPRS (General Packet Radio Service) is an example of

- ☐ a. 2 G
- ☐ b. 3 G
- ☒ c. 2.5 G
- ☐ d. 1 G

Question **80**

Complete

Marked out of 1.00

The UMTS is based on _____ multiple access technique.

- ☒ a. CDMA
- ☐ b. TDMA
- ☐ c. FDMA
- ☐ d. SDMA

Question **81**

Complete

Marked out of 1.00

Which of the statement is incorrect among the following

- ☐ a. The PCU (Packet Control Unit) in GPRS directs the circuit switched data to standard GSM network and packet : GPRS network.
- ☐ b. None of these
- ☒ c. The PCU (Packet Control Unit) in GPRS directs the circuit switched data to GPRS network and packet switched GSM network.
- ☐ d. The PCU (Packet Control Unit) in GPRS directs only the packet switched data to GPRS network.

Question **82**

Complete

Marked out of 1.00

Determine the capacity of a cellular system, with cluster size $N = 7$ where each cell is allocated a group of 60 channels and replication factor $M = 4$.

- ☐ a. None of these
- ☐ b. 1480
- ☒ c. 1680
- ☐ d. 1600

Question **83**

Complete

Marked out of 1.00

To avoid cell dragging which parameters has to carefully handled

- ☐ a. Transmitting power of Base Station (BS)
- ☒ b. Both transmitting power of BS and distance between the BS and the mobile unit
- ☐ c. Distance between the BS and the mobile unit
- ☐ d. Handoff threshold

Question **84**

Complete

Marked out of 1.00

Which of the following is a feature of VoLTE but not necessarily of LTE?

- ☐ a. Multi-user MIMO (Multiple Input Multiple Output)
- ☐ b. Carrier aggregation
- ☒ c. Support for high-definition (HD) voice calls
- ☐ d. Enhanced voice codecs

Question **85**

Complete

Marked out of 1.00

What does GSM stand for?

- ☐ a. Global Standard for Mobile Devices
- ☐ b. Global System for Mobility
- ☐ c. General System for Mobile Connectivity
- ☒ d. Global System for Mobile Communications

Question **86**

Complete

Marked out of 1.00

In MACA protocol, which of the following packet avoids hidden terminal problem

- ☐ a. CTS (clear to send)
- ☒ b. ACK
- ☐ c. RTS (request to send)
- ☐ d. None of these

Question **87**

Complete

Marked out of 1.00

A base station (BS) is transmitting with a power of 75 watt at frequency $f_c = 915$ MHz, the distance between the BS and mobile unit is 50 m. Calculate the power received in dBm by the mobile unit considering free space propagation, where transmitting and receiving antenna has unit gain.

- ☐ a. None of these
- ☐ b. 2.046×10^{-2} dBm
- ☐ c. 16.89 dBm
- ☒ d. -16.89 dBm

Question **88**

Complete

Marked out of 1.00

In a cellular system, the capacity of the system is directly proportional to

- ☐ a. Number of times a cluster is replicated
- ☐ b. Number of Base stations
- ☐ c. None of these
- ☒ d. Number of cells

Question **89**

Complete

Marked out of 1.00

For a roaming user who is visiting a new MSC, the IMSI (International Mobile Subscriber Identity) will be temporarily

- ☐ a. All of these
- ☐ b. HLR (Home Location Register)
- ☐ c. AuC (Authentication Center)
- ☒ d. VLR (Visitor Location Register)

Question **90**

Complete

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A Bluetooth enabled wireless device supports

- ☐ a. point-to-multipoint communication
- ☐ b. None of these
- ☒ c. both point-to-point and point-to-multipoint communication
- ☐ d. point-to-point communication

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