

- 001.** Allocation of specific channels to a cell site is known as . **C**
 A Frequency management B Frequency allotment
 C Channel assignment D Channel modelling
- 002.** What is the other name of set-up channels? **C**
 A Reverse channels B Forward channels
 C Control channels D Traffic channels
- 003.** What are the types of set-up channels? **C**
 A Access channels and forward channels B Paging channels and reverse channels
 C Access and paging channels D Forward and reverse channels
- 004.** In set-up channels every two way channel contains a bandwidth. **C**
 A 60 kHz B 30 kHz
 C 30 MHz D 45 kHz
- 005.** What basis in a fixed channel set that consists of one or more subsets is assigned to a cell site? **C**
 A Short term basis B In dynamic basis
 C Long term basis D Temporary basis
- 006.** What is the method of channel assignment to a mobile unit during call in progress? **C**
 A Long term basis B Permanent basis
 C Short-term basis D In flexible mode.
- 007.** The main function of frequency management is **C**
 A Increasing gain B Increasing power
 C Dividing the total number of channels into subsets D Adding the given number of channels
- 008.** Numbering the channel is done by the following channel **D**
 A RVC B RCC
 C FVC D FCC
- 009.** For a traffic load of 90 voice channels, if the blocking probability is 0.02 the holding time period is 100 sec. and the load offered is 78.3 then what will be the number of calls (N) per hour? **B**
 A 3218 B 2818
 C 1500 D 3300
- 010.** In a cell, how many set-up channels are generally present? **B**
 A 32 B 21
 C 53 D Any number
- 011.** The access channel can be designated by . as a channel apart from set-up channels in the cell site **C**
 A BSC B PSTN
 C MTSO D Control room
- 012.** In selecting a voice channel process the voice channels are assigned from forward set-up channel what antennas are used here? **C**
 A One of the three 60^0 directional antennas B One of the two 120^0 directional antennas
 C One of the three 120^0 directional antennas D One of the two 60^0 directional antennas
- 013.** All the set-up channels carries only . **B**
 A Header information B Data information
 C Address information D Handoff information.
- 014.** If there are 90 voice radio channel, what channel is required to co-ordinate for call set-up? **A**
 A 1 set-up channel B 2 set-up channel
 C 1 voice channel D 1 voice and 2 set-up channels
- 015.** In normal case set-up channels can be used for paging and accessing. **B**
 A Two B One

- C Three D None
- 016.** The forward set-up channel is sent at the . and the reverse set-up channel is sent at the . **B**
- A Mobile unit, cell site B Cell site, mobile unit
C BTS, PSTN D BTS, MSC
- 017.** What is RECC? **B**
- A Reverse electrical control channel B Reverse control channel
C Reverse enable control channel D Retry enable call control
- 018.** The FOCC is also known as .. **A**
- A Power of a forward set-up channels B power of a reverse channel
C Signal strength of reverse channel D Signal strength of set-up channel.
- 019.** Garage door opener is a _____ **A**
- A Transmitter B Receiver
C Transceiver D De-modulator
- 020.** What is Mobile communication? **A**
- A Allows to communicate from different locations without the use of physical medium B Allows to communicate from different locations with the use of physical medium
C Allows to communicate from same locations without the use of physical medium D Allows to communicate from same locations with the use of physical medium
- 021.** What is the main function of FOCC in cell site? **B**
- A Sends control information B Page to mobile unit
C Receives page D Controls page
- 022.** When there is no voice channels, the cell site could send a . message using set-up channels. **B**
- A Page B Direct cell retry
C Acknowledge signal D Ready signal
- 023.** For keeping the reverse set-up channels open as far as possible what is adapted in a mobile unit? **C**
- A Handoff scheme B Self-generation scheme
C Self-location scheme D Channel assignment.
- 024.** For searching a mobile unit in cell site, what the MTSO has to do? **C**
- A Waiting is activated B Receiving ACK signal
C Sending page D Receiving page
- 025.** _____ is a transmission method used in MIMO wireless communications to transmit encoded data signals independently. **C**
- A MU-MIMO B STTD
C SM D Collaborative Uplink MIMO
- 026.** Space diversity also known as _____ **B**
- A Frequency diversity B Antenna diversity
C Polarization diversity D Time diversity
- 027.** Which type of transmission technique is employed by paging system? **D**
- A Multicasting B Unicasting
C Hybrid D Simulcasting
- 028.** Which of the following is the drawback for cordless telephones? **C**
- A Security B Wireless technology
C Limited coverage area D Mobile
- 029.** Which of the following is not an example of wireless communication? **C**
- A Wi-Fi B Mobiles
C Landline D Wireless Computer Parts
- 030.** Why wireless communication is used? **D**
- A It enables billions of people to connect to the Internet B Lowers the cost of network infrastructure

- C Makes services more inexpensive D All of the mentioned
- 031.** What is wireless communication? **B**
- A Sending data from one location to with the use of physical medium B Sending data from one location to another without the use of physical medium
- C Sending data from one location to another without the use of virtual medium D Sending data from one location to with the use of virtual medium
- 032.** Which of the following is a type of wireless communication? **D**
- A LAN B WAN
- C PAN D CAN
- 033.** Which modulation scheme is used by Bluetooth? **A**
- A GFSK B DQPSK
- C BPSK D MSK
- 034.** Which of the following is a universally adopted shape of cell? **A**
- A Hexagon B Square
- C Circle D Triangle
- 035.** Which of the following has no backward compatibility with 3G Cdma2000? **D**
- A IS-95B B IS-95A
- C IS-95 D GPRS
- 036.** Which two channels are responsible for initiating mobile calls? **D**
- A FCC and RVC B FVC and FCC
- C FVC and RVC D FCC and RCC
- 037.** Which of the following is a CDMA standard of second generation network? **C**
- A ETACS B EDGE
- C IS-95 D IS-136
- 038.** Which of the following is not a TDMA standard of 2.5G network? **B**
- A GPRS B GSM
- C HSCSD D EDGE
- 039.** Which of the following leads to the 3G evolution of GSM, IS-136 and PDC systems? **C**
- A GPRS B HSCSD
- C W-CDMA D EDGE
- 040.** Which of the following is not an effect caused by multipath in radio channel? **D**
- A Random frequency modulation B Time dispersion
- C Rapid changes in signal strength D Power of base station
- 041.** What is the main disadvantage of RF pulse system? **B**
- A Simplicity B Interference and noise
- C Not real time D Complexity
- 042.** Which of the most widely used model for signal prediction in urban areas? **A**
- A Okumura model B Attenuation factor model
- C Ericsson Multiple Breakpoint Model D Log distance path loss mode
- 043.** Which of the following problem occur due to adjacent channel interference? **D**
- A Cross talk B Missed calls
- C Blocked calls D Near-far effect
- 044.** Which of the following do not undergo free space propagation? **A**
- A Wired telephone systems B Wireless line of sight radio links
- C Microwave line of sight radio links D Satellite communication system
- 045.** Which of the following explains the concept of diffraction loss? **B**
- A Archimedes Principle B Fresnel zone
- C Principle of Simultaneity D Pascals Principle
- 046.** Which of the following is not a practical path loss estimation technique? **C**
- A Determination of percentage of coverage area B Hata model
- C Log distance path loss model D Log normal shadowing

- 047.** Which of the following is associated with the handoff in first generation analog cellular systems? **A**
 A Locator receiver B MAHO
 C Cell dragging D Breathing cell
- 048.** MAHO stands for _____ **B**
 A MSC assisted handoff B Mobile assisted handoff
 C Machine assisted handoff D Man assisted handoff
- 049.** Dwell time does not depend on which of the following factor? **D**
 A Propagation B Interference
 C Distance between subscriber and base station D Mobile station
- 050.** Which of the following is not a channel parameter? **D**
 A Coherence time B Rms delay spread
 C Doppler spread D Bandwidth
- 051.** Which of the following is not a principle shape factor? **B**
 A Azimuthal direction of maximum fading B Angle of arrival
 C Angular spread D Angular constriction
- 052.** What is the condition for handoff? **A**
 A A mobile moves into a different cell while in conversation B A mobile remains in the same cell while in conversation
 C A mobile moves to different cell when idle D A mobile remains in the same cell and is idle
- 053.** The time over which a call can be maintained within a cell without handoff is called _____ **C**
 A Run time B Peak time
 C Dwell time D Cell time
- 054.** What was the typical handoff time in first generation analog cellular systems? **B**
 A 1 second B 10 seconds
 C 1 minute D 10 milliseconds
- 055.** How much time it takes for handoff in digital cellular systems like GSM? **A**
 A 1 second B 10 seconds
 C 1 minute D 10 milliseconds
- 056.** Cell dragging is a problem occur due to _____ **A**
 A Pedestrian users B Stationary users
 C High speed mobile systems D Base stations having same frequency
- 057.** What is the condition for intersystem interference? **C**
 A Mobile moves from one cell to another cell B Mobile remains in the same cell
 C Mobile moves from one cellular system to another cellular system D Mobile remains in the same cluster
- 058.** What is the disadvantage of guard channel? **D**
 A Efficient utilization of spectrum B Cross talk
 C Near far effect D Reduce total carried traffic
- 059.** Which of the following priority handoff method decrease the probability of forced termination of a call due to lack of available channels? **A**
 A Queuing B Guard channel
 C Cell dragging D Near far effect
- 060.** Umbrella cell approach is possible by using _____ **B**
 A Antenna of same heights B Antenna of different heights
 C Different voice channels D Different control channels
- 061.** Creating handoffs is requested by _____ **B**
 A Cell site B MTSO
 C BSC D PSTN

- 062.** The queueing of handoffs is when compared to two-threshold-level handoffs **A**
 A More effective B Less effective
 C Equal D Very negligible
- 063.** One of the method to make handoff to occur in proper location and with less interference is known as **B**
 A Forced handoff B Two handoff level
 C Hard handoff D Soft handoff
- 064.** Soft handoff is also known as _____ **D**
 A MAHO B Hand over
 C Break before make D Make before break
- 065.** The received signal strength can be expressed as **A**
 A $C + I$ B $C^2 + I$
 C CI D CI^2
- 066.** The MTSO will handle the.. first and .second **B**
 A Originating calls, handoff calls. B Handoff calls, originating calls.
 C Dropped calls, handoff calls D Dropped calls, originating calls.
- 067.** If a handoff that should not occur but if it is forced to happen then it is called as **C**
 A Soft handoff B Hard handoff
 C Forced handoff D None of the above
- 068.** What are co-channel cells? **D**
 A Cells having different base stations B Cells using different frequency
 C Cells using adjacent frequency D Cells using same frequency
- 069.** Co-channel reuse ratio is define by _____ **B**
 A $Q=D \cdot R$ B $Q=D/R$
 C $Q=D^{\wedge}R$ D $Q=1/R$
- 070.** Which of the following is not a source of interference? **A**
 A Base station in a different cluster B Another mobile in same cell
 C A call in progress in neighbouring cell D Any BS operating on same frequency
- 071.** In normal handoff procedure the handoff request is based on the **B**
 A Power level B Signal strength
 C Peak current D Peak voltage
- 072.** If call handoff is transferred from one system to another system is known as handoff **A**
 A Intersystem B Intrasystem
 C soft D Hand
- 073.** When mobile(in Call) switches to a new sector/Cell which is on different frequency , then it performs **A**
 A Hard handover B soft handover
 C intersystem D intra system
- 074.** Interference in control channel leads to _____ **C**
 A Cross talk B Queuing
 C Blocked calls D Voice traffic
- 075.** The minimum spectrum allocation required for W-CDMA is **A**
 A 5mhz B 2mhz
 C 500khz D 100khz
- 076.** The interference between the neighboring base stations is avoided by **A**
 A Assigning different group of channels B Using transmitters with different power level
 C Using different antennas D All of the above
- 077.** MIN stands for **A**
 A Mobile Identification Number B Mobile Internet
 C Mobility In Network D None of the above
- 078.** What is the cluster size for CDMA? **C**
 A $N=10$ B $N=100$
 C $N=1$ D $N=50$

- 079.** Which of the following problem occur due to adjacent channel interference? **C**
 A Blocked calls B Cross talk
 C Near-far effect D Missed calls
- 080.** What is handoff? **C**
 A forward channel B roamer
 C switching technique D guard channel
- 081.** Which type of handoff used in CDMA? **A**
 A Soft handoff B Hard handoff
 C Soft & hard handoff D None of the above
- 082.** Co-channel interference is a function of _____ **A**
 A Radius of cell B Transmitted power
 C Received power D Frequency of mobile user
- 083.** Adjacent channel interference can be minimized through _____ **B**
 A Changing frequency of base stations B Careful filtering and channel assignments
 C Increasing number of base stations D Increasing number of control channels
- 084.** Traffic intensity is expressed in **B**
 A Erlangs /MHz/km² B Erlangs
 C / sec D Db/sec
- 085.** Inter system Handoffs are done **D**
 A When mobile station moves in two cellular systems with different MSC B When mobile station moves between two cellular systems
 C When mobile station receives more power from other base station than the serving base station D All of the above
- 086.** When a fraction of assigned channel is reserved for handoffs, it is **A**
 A Guard channel concept B Fixed channel assignment
 C Dynamic channel assignment D None of the above
- 087.** Interference in frequency bands may lead to **D**
 A Cross talk B Missed calls
 C Blocked calls D All of the above
- 088.** Grade of service refers to **B**
 A Accommodating large number of users in limited spectrum B Ability of a user to access trunked system during busy hour
 C Two calls in progress in nearby mobile stations D High speed users with large coverage area
- 089.** The process of subdividing a congested cell into smaller cells is called _____ **A**
 A Cell splitting B Sectoring
 C Micro cell technique D Repeaters
- 090.** US digital cellular system based on CDMA was standardized as _____ **C**
 A IS-54 B IS-136
 C IS-95 D IS-76
- 091.** In a micro cell zone concept, when a mobile travels from one zone to another within the cell, it retains the same _____ **C**
 A Power level B Base station
 C Channel D Receiver
- 092.** Adjacent channel interference occurs due to _____ **D**
 A Power transmitted by Base station B Mscs
 C Same frequency of mobile users D Imperfect receiver filters
- 093.** One Erlang represents _____ **A**
 A One call- hour per hour B One call-minute per hour
 C One call- hour per minute D Many calls- hour per hour
- 094.** What is the measure of the ability of user to access a trunked system during the **B**

busiest hour?

A Trunking

C Multiplexing

B Grade of Service (GOS)

D Sectoring

095. . GOS is typically given as a likelihood that a _____ **C**

A Call is in progress

B Channels are busy

C Call is blocked

D Channel are free

096. The code division multiple access technique is not usually used because **A**

A It requires very large bandwidth

B The circuitry required is very complex.

C The system becomes too expensive

D Its technology has not been completely developed as yet

097. With reference to transponder capacity utilization in case of TDMA and FDMA techniques **A**

A The capacity utilization is almost 100% irrespective of number of accesses in TDMA

B The capacity utilization can never be 100% in FDMA

C The capacity utilization is 100% in TDMA for a single access only

D None of these

098. The multiple access technique that is particularly suitable for communication satellites with military applications is **C**

A TDMA

B FDMA

C CDMA

D Random access

099. . Which of the following is used by IS-95? **A**

A DSSS

B FHSS

C THSS

D Hybrid

100. Each IS-95 channel occupies _____ of spectrum on each one way link. **A**

A 1.25 mhz

B 1.25 khz

C 200 khz

D 125 khz

101. _____ are used to resolve and combine multipath components. **C**

A Equalizer

B Registers

C RAKE receiver

D Frequency divider

102. The multiple satellite access technique suitable only for digital transmission is the **B**

A CDMA

B TDMA

C FDMA

D Both TDMA and FDMA

103. Near far effect is more prominent in **A**

A Direct sequence spread spectrum technique

B Direct sequence CDMA technique

C Frequency hopped spread spectrum technique

D SDMA

104. Intermodulation distortion is present in **A**

A FDMA

B TDMA

C CDMA

D GSM

105. The bandwidth of common signalling channel is **A**

A 160 khz

B 120 khz

C 220 khz

D 60 khz

106. Satellites may reuse the same frequency in the same area by **C**

A TDMA

B GSM

C FDMA

D CDMA

107. The time duration between the transmission of traffic bursts in TDMA is **A**

A 125 μ sec

B 120 μ sec

C 64 μ sec

D 250 μ sec

108. Name of the multiple access technique in which full bandwidth is used for full time by all users is **B**

A FDMA

B CDMA

C TDMA

D GSM

109. The signalling channel consist of **D**
 A Order wire channel B Management channel
 C Transmit timing channel D All of these
110. How many different types of cell sizes present in the GSM network? **C**
 A 3 B 4
 C 5 D 6
111. The type of cell in which the height of antenna is above the average level of roof top is **A**
 _____.
 A Macro cell B Micro cell
 C Pico cell D Umbrella cell
112. _____ is a cellular system uses FDMA and follows analog medium for communication. **B**
 A GSM B AMPS
 C D-AMPS D N-AMPS
113. GSM is a secure _____ system. **B**
 A Wired B Wireless
 C Simple D Complex
114. The first person to make call on network of GSM was _____. **C**
 A Pehr Evind Svinhufvud B Paavo Lipponen
 C Harri Holkeri D Juha Sipila
115. The standard for GSM was developed by _____. **C**
 A Telecommunications Industry Association (TIA) B International Telecommunications Union (ITU)
 C European Telecommunications Standards Institute (ETSI) D None of the above
116. Cellular services utilizes _____ transmitters. **C**
 A High power B Ultra-high power
 C Low power D Both low and high power
117. Mobility management and the call out functions for the mobile phone roaming are carried out by _____. **B**
 A Base Station Subsystem B Network Switching Subsystem (NSS)
 C GPRS Core networkoperations D Support System
118. _____ used by the service providers of telecommunications to manage networks. **D**
 A base Station Subsystem B Network Switching Subsystem
 C GPRS Core Network D Operations Support System (OSS)
119. A PIN used to protect SIM card has _____ digits. **B**
 A 3 B 4
 C 5 D 6
120. In the GSM system the type of cell whose antenna height is under the average level of roof top is _____. **NO ANSWER GIVEN**
- A Umbrella cell B Femto cell
 C Pico cell D Micro cell
121. In practical the longest distance supported by the GSM system is _____ (Kilo meters). **B**
 A 25 B 35
 C 45 D 55
122. Sim in gsm network stands for **A**
 A Subscriber Identity Module B Subscriber Investigation Mobile
 C Subscriber Identification Mobile D Smart Identification Module
123. SIM card is protected by using _____. **A**
 A Personal Identification Number (PIN) B Mobile Identification Number (MIN)

- C International Mobile Subscriber Identity (IMSI) D Mobile Subscription Identification Number (MSIN)
- 124.** The maximum transceivers handled by BTS are _____. **C**
 A 4 B 8
 C 16 D 32
- 125.** In telecommunications OMC stands for _____. **A**
 A Operations and Maintenance Center B Open Method of Coordination
 C Operational Method for Coordination D None of the Above
- 126.** GSM is a cellular network with a group of cell in it known as _____. **B**
 A Node B Cluster
 C Bridge D Hub
- 127.** The voice codec used in GSM follows a system of _____. **B**
 A Huffman coding B Linear Predictive coding
 C Line coding D Cryptographic coding
- 128.** GSM system consists of eight _____ speech channels for each radio frequency. **A**
 A Full rate B Duplex
 C Half rate D Full duplex
- 129.** The frequency in the GSM is selected by the operator. Further it is divided into _____. **C**
 A Frame B Packet
 C Timeslot D Bits
- 130.** The timeslots in the GSM are grouped to form a _____ frame. **B**
 A CDMA B TDMA
 C OFDMA D SDMA
- 131.** _____ is always attached with MSC. **A**
 A Visitor Location Register (VLR) B Home Location Register (HLR)
 C Authentication Center (AUC) D Equipment Identity Register (EIR)
- 132.** When the subscription is bought from the PCS operators the subscribers registered in _____ of the operator. **B**
 A Visitor Location Register (VLR) B Home Location Register (HLR)
 C Authentication Center (AUC) D Equipment Identity Register (EIR)
- 133.** EDGE service belongs to _____ generation. **C**
 A 1G B 2G
 C 2.5G D 3G
- 134.** _____ is known as controlling center of NSS. **D**
 A Base Station Subsystem B Operations Support System
 C GPRS Core Network D Mobile Switching Center (MSC)
- 135.** GMSC stands for _____. **A**
 A Gateway Mobile Switching Center B Gateway Mobile Service Center
 C Global Mobile Satellite Communication D Global Mobile Service Center
- 136.** _____ is a node that interconnects two networks. **C**
 A Exclusion B Expulsion
 C Gateway D Departure
- 137.** _____ service is used by the network providers to recover the dues **A**
 A Call barring B Calling number identification
 C Call conferencing D Advice of Charge
- 138.** Wimax uses the _____. **A**
 A orthogonal frequency division multiplexing B time division multiplexing
 C space division multiplexing D channel division multiplexing
- 139.** What is the full form of GPRS? **C**
 A GSM Packet Service B Global Packet Service
 C General Packet Service D General Packet Switching

- 140.** How much increase in spectral efficiency is provided by W-CDMA in comparison to GSM? **D**
 A Two times B Three times
 C No increase D Six times
- 141.** _____ and _____ are either enforced as free-standing nodes or forms a combine node. **D**
 A VLR and HLR B HLR and AUC
 C AUC and VLR D AUC and EIR
- 142.** A Base Station System (BSS) consists of _____. **C**
 A Base Station Controllers (bscs) B Base Transceiver Stations (btss)
 C Both a and b D None of the above
- 143.** Wimax stands for _____. **B**
 A wireless maximum communication B worldwide interoperability for microwave access
 C worldwide international standard for microwave access D wireless internet maximum communication
- 144.** What is the chip rate of W-CDMA? **B**
 A 1.2288 Mcps B 3.84 Mcps
 C 270.833 Ksps D 100 Mcps