MCQ Questions

Computer Engineering

Subject Name: Mobile Computing **Semester: VI**

Multiple Choice Questions

	Choose the correct option for following questions. All the Questions carry equal marks
1.	1) Which of the following usually stores all user-related data that is also relevant to GSM mobile systems?
Option A:	VLR
Option B:	HMR
Option C:	CMR
Option D:	SIM
2.	Which of these is required for the transmission of digital information by translating it into analogue signals via a particular frequency?
Option A:	BSPK
Option B:	QPSK
Option C:	Modulation
Option D:	Demodulation
3.	Two or more antennas can also be combined to improve reception by counteracting the negative effects of multi-path propagation. These antennas, also called
Option A:	Multi-element antenna arrays
Option B:	Smart antennas
Option C:	Sectorized antenna
Option D:	Isotropic radiator
4.	In which one of the following, the slow and fast hopping is used?
Option A:	GSM
Option B:	GPRS
Option C:	FHSS
Option D:	None of the above
5.	Which of the following does not come under subsystem of GSM architecture?
Option A:	BSS
Option B:	NSS
Option C:	OSS
Option D:	Channel

6.	Changing VLRs with uninterrupted availability of all services is called as
Option A:	VLR switching
Option B:	Roaming
Option C:	Hard handoff
Option D:	Soft handoff
7.	What is the interface between SGSN and HLR in a GPRS network structure?
Option A:	Gs
Option B:	Gn
Option C:	Gb
Option D:	Gr
8.	UMTS is also known as _____
Option A:	IS-95
Option B:	GPRS
Option C:	CdmaOne
Option D:	W-CDMA
9.	It is defined as the process of transferring a call (or data transfer) in progress from one channel to another channel.
Option A:	Handover
Option B:	Handoff
Option C:	Roaming
Option D:	Both A and B
10.	The security algorithms used in GSM are_____.
Option A:	A3
Option B:	A5
Option C:	A8
Option D:	All of the above
11.	_____ is the mechanism of taking a packet consisting of packet header and data and putting it into the data part of a new packet.
Option A:	Decapsulation
Option B:	Encapsulation
Option C:	IP-in-IP
Option D:	Packet extension
12.	Foreign agents and home agents advertise their presence periodically using special message is called as
Option A:	Tunneling message
Option B:	Registration request
Option C:	Agent advertisement message
Option D:	Binding request
13.	In TCP/IP, ———————— is a congestion control algorithm that makes it possible to quickly recover lost data packets.
Option A:	Fast retransmit and fast recovery
Option B:	Fast retransmit

Option C:	Fast recovery
Option D:	None of the above
14.	In the Indirect TCP the Foreign Agent (FA) becomes or acts as a —— and relays data in both directions
Option A:	Router
Option B:	Node
Option C:	Proxy
Option D:	Access Point
15.	A mobile phone uses _____ type of duplex communication
Option A:	Full
Option B:	Half
Option C:	Both A And B
Option D:	None of the above
16.	What does LTE stand for
Option A:	Level telecom advanced
Option B:	Long terminal advanced
Option C:	Long term evolution
Option D:	Long time evolution
17.	What are the advantages of a 4G LTE network over 3G network?
Option A:	More Spectral Efficiency
Option B:	Low power consumption
Option C:	Scalability and flexibility with other networks
Option D:	All of the above
18.	What is the full form of WLAN?
Option A:	Wide Local Area Network
Option B:	Wireless Local Area Network
Option C:	Wireless Land Access Network
Option D:	Wireless Local Area Node
19.	Which of the following specifies a set of media access control (MAC) and physical layer specifications for implementing WLANs?
Option A:	IEEE 802.16
Option B:	IEEE 802.3
Option C:	IEEE 802.11
Option D:	IEEE 802.15
20.	Which of the following is the 802.11 High Rate Standard?
Option A:	IEEE 802.15
Option B:	IEEE 802.15.4
Option C:	IEEE 802.11g
Option D:	IEEE 802.11b
21.	What is an Access point?

Option A:	An entity that provides access to the LLC Layer
Option B:	An entity that provides access to the MAC Layer
Option C:	An entity that provides access to the distribution system
Option D:	An entity that provides access to the Basic Service Set
22.	The frequency band of Bluetooth radio is around
Option A:	2.1GHz
Option B:	2.3GHz
Option C:	2.4GHz
Option D:	None of the above
23.	The Single Piconet formed by
Option A:	One Slave and One master
Option B:	One Slave and multiple masters
Option C:	Multiple slaves and one master
Option D:	Multiple slaves and multiple masters
24.	The Scatternet is a combination of
Option A:	Single piconet
Option B:	Double piconet
Option C:	Multiple piconet
Option D:	None of the above
25.	The size of an IP address in IPv6 is
Option A:	4 bytes
Option B:	128 bits
Option C:	8 bytes
Option D:	100 bits
26.	In CIP Architecture the major components are
Option A:	Micro mobility
Option B:	Macro mobility
Option C:	Cellular IP gateway
Option D:	None of the above
27.	In practical IPv6 application, a technology encapsulates IPv6 packets inside IPv4 packets, this technology is called
Option A:	Tunneling
Option B:	Hashing
Option C:	Routing
Option D:	NAT
28.	The header length of an IPv6 datagram is
Option A:	10 bytes
Option B:	25 bytes
Option C:	30 bytes
Option D:	40 bytes
29.	HMIPv6 stands for

Option A:	Host Mobile IPv6
Option B:	High Mobile IPv6
Option C:	Hierarchical Mobile IPv6
Option D:	None of the above
30.	Challenges of mobile computing include
Option A:	Low Security
Option B:	Ad hoc Networking
Option C:	Shared medium
Option D:	All of the above

Descriptive Questions

Differentiate between DSSS and FHSS.
Explain the Various types of antennas along with their radiation patters.
Explain GSM architecture and different interfaces used in it.
What are the modifications are required to an existing GSM network to be upgraded to GPRS, Explain with suitable diagram.
Write a short note on UTRAN and UMTS network.
Explain Hidden and Exposed terminal problem? Discuss solutions to this problems
Explain Tunnelling and Encapsulation and discuss how tunnelling work for Mobile IP using IP-In-IP Encapsulation?
Explain about Hierarchical Mobile IPv6?
Explain the SAE architecture in detailed manner.
Explain LTE protocol stack.
Explain LTE MAC layer.
Explain Protocol Architecture of 802.11?
Explain in detail IEEE 802.11 MAC sub layer?
Explain Bluetooth Architecture in detailed manner?
Draw and explain Bluetooth protocol stack in detail?
Explain about optimization in mobility management?
Comparison of IPv4 and IPv6 Header format?
What is Cellular IP? Explain CIP architecture along with routing and paging procedure in CIP?
Discuss in detail about Macro Mobility?
Explain about HAWAII in detailed manner?
Explain Agent advertisement in Mobile IP?
Explain various ALOHA protocol?
What are the goals of Mobile IP?
Write a short note on different generations of telecommunication
Compare between 1G, 2G, 3G, 4G and 5G generations.

Compare between LTE and LTE advanced.
Explain how Mobile originated call (MOC) work.
Explain the concept of medium access protocol.
Discuss various GSM services.
Explain how Mobile terminated call work in GSM.
Difference between Ad-hoc Network and Infrastructure Network?
Comparison of various IEEE 802.11x Standards?
Explain about Wireless LAN threats?
Short note on 5G.
Describe Micro Mobility.