Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: **Computer Engineering**

Curriculum Scheme: **Rev2016**

Examination: **BE Semester VII**

Course Code: **CSC702** and Course Name: **Mobile Comm. and Computing**

Time: 2 hour   Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Which of the following is not a characteristic of 3G network?
Option A:	Communication over VoIP
Option B:	Unparalleled network capacity
Option C:	Multi-megabit Internet access
Option D:	LTE based network
2.	Which of the following leads to evolution of 3G networks in CDMA systems?
Option A:	IS-95
Option B:	IS-95B
Option C:	CdmaOne
Option D:	Cdma2000
3.	LTE Radio link control layer responsible for
Option A:	re-segmentation of RLC data PDUs
Option B:	Mapping between logical channels and transport channels, Multiplexing of MAC SDUs
Option C:	Carries all information from the MAC transport channels over the air interface
Option D:	Hiding information of SDU
4.	Which of the following is the world's first cellular system to specify digital modulation and network level architecture?
Option A:	GSM
Option B:	AMPS
Option C:	CDMA
Option D:	IS-54
5.	Which of the following does not come under the teleservices of GSM?
Option A:	Standard mobile telephony
Option B:	Mobile originated traffic
Option C:	Base originated traffic

Option D:	Packet switched traffic
6.	Which of the following subsystem provides radio transmission between mobile station and MSC?
Option A:	BSS
Option B:	NSS
Option C:	OSS
Option D:	BSC
7.	A GPRS Core network is part of System in a GSM Network Structure?
Option A:	Mobile Station
Option B:	BSS
Option C:	MSS
Option D:	NSS
8.	Which of the following memory device stores information such as subscriber's identification number in GSM?
Option A:	Register
Option B:	Flip flop
Option C:	SIM
Option D:	SMS
9.	_____ is responsible for tunnelling multicast packets to the MS's currently subscribed FA.
Option A:	Multicast home agent
Option B:	Mobile multicast
Option C:	Mobile station
Option D:	Base station
10.	_____Router on a mobile node's visited network that provides routing services to the mobile node while the mobile node is registered.
Option A:	Mobile node
Option B:	Foreign Agent
Option C:	Home agent
Option D:	Network agent
11.	Mobile IP uses a registration mechanism to register the _____ with a home agent.
Option A:	Care-of address
Option B:	Co-located care-of address
Option C:	Home network address
Option D:	Foreign network address
12.	The home agent redirects datagrams from the home network to the care-of address by constructing a new IP header that contains the mobile node's care-of

	address as the_____
Option A:	Destination IP
Option B:	Source IP
Option C:	Home agent IP
Option D:	Foreign Agent IP
13.	It establishes a virtual pipe for the packets available between a tunnel entry and an endpoint. It is the process of sending a packet via a tunnel and it is achieved by a mechanism called_____
Option A:	Tunneling
Option B:	Encapsulation
Option C:	Discovery
Option D:	Registration
14.	This is the family of specifications for wireless local area networks (WLANs) developed by a working group of the Institute of Electrical and Electronics Engineers (IEEE).
Option A:	3G
Option B:	802.11
Option C:	802.3
Option D:	802.5
15.	The IEEE 802.11 standard for wireless LANs defines two services: _____ and _____.
Option A:	BSS; ASS
Option B:	ESS; SSS
Option C:	BSS; ESS
Option D:	BSS; DCF
16.	In IEEE 802.11, when a frame is going from one station in a BSS to another without passing through the distribution system, the address flag is _____.
Option A:	11
Option B:	00
Option C:	10
Option D:	01
17.	What is the range of asynchronous user data rates provided by HIPER-LAN?
Option A:	1-100 Mbps
Option B:	50-100 Mbps
Option C:	1-20 Mbps
Option D:	500 Mbps to 1 Gbps
18.	HIPER-LAN stands for _____
Option A:	High Precision Radio Local Area Network
Option B:	High Performance Radio Local Area Network
Option C:	High Precision Radio Land Area Network

Option D:	Huge Performance Radio Link Access Node
19.	What location management feature is supported by 4G?
Option A:	Concatenated Location Registration
Option B:	Concurrent Location Register
Option C:	Concatenated Management
Option D:	Collated Location Registration
20.	Which operation required to perform When an incoming call arrives for a mobile station, the cellular network will page the mobile station in all possible cells to find out the cell in which the mobile station is located so that the incoming call can be routed to the corresponding base station
Option A:	Paging
Option B:	Location tracking
Option C:	Location management
Option D:	Location mapping
Q2	**Solve any Four out of Six** **5 marks each**
A	Explain concept of frequency reuse with clustering
B	Write short note on Voice over LTE
C	Explain hidden and exposed terminal problem in WLAN
D	How packet delivery is achieved to and from mobile node?
E	Explain IP Mobility
F	Explain different handovers in GSM
Q3.	**Solve any Two Questions out of Three** **10 marks each**
A	Explain GSM architecture in detail with diagram
B	Explain Bluetooth protocol stack
C	Explain different component used in LTE architecture with diagram