

University of Mumbai
Examinations Summer 2022
(Revised Set May 2022)

Time: 2 Hr 30 Mins

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	VoLTE Stands for
Option A:	Voice over Long Term Evolution
Option B:	Voice Over Local Telecommunication Equipment
Option C:	Video Over Long Term Evolution
Option D:	Volume Over Long Term Evolution
2.	UTRAN stands for
Option A:	Universal Transmission Radio Networks
Option B:	Universal Terrestrial Radio Access Network
Option C:	Unified Transmission Area Network
Option D:	Universal Time Radio Access Network
3.	Which of the following Stores the User Related Data That is also relevant to GSM Mobile Systems?
Option A:	VLR
Option B:	HMR
Option C:	GMR
Option D:	SIM
4.	Generic Routing Encapsulation allows the encapsulation of packet of One protocol suite into payload portion of a packet of another Protocol suite is nothing but
Option A:	GRE
Option B:	IP Tunneling
Option C:	Protocol Synchronization
Option D:	Minimal Encapsulation
5.	Two or more antennas can also be combined to Improve the reception by counteracting the negative effects of multi path propagation, these antennas are also termed as
Option A:	multi element antenna Array
Option B:	Smart Antenna
Option C:	Sectored antenna
Option D:	Isotropic Radiator
6.	What is an Access Point
Option A:	An entity that provides access to LLC layer
Option B:	An entity that provides access to MAC layer
Option C:	An entity that provides access to the Destination System
Option D:	An entity that provides access to Basic Service Set

7.	A Mobile Phone Uses _____ Type of Communication
Option A:	Full Duplex
Option B:	Half Duplex
Option C:	Both A and B
Option D:	None of the Above
8.	There is a need for certain _____ to avoid the frequency Overlapping in FDM.
Option A:	Guard Space
Option B:	Frequency Range
Option C:	Carrier
Option D:	Attenuator
9.	Which of the following is the disadvantage of having smaller cells in Cellular System
Option A:	Less Transmission Power
Option B:	Only Local Interface
Option C:	Need of Handover
Option D:	Frequency Re-use
10.	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:	Slow Start

Q2,	Solve any Two	10 marks each
a)	Explain Bluetooth Protocol Stack in detail. Explain the terms PICONET and Scatter net in terms of Bluetooth.	
b)	Explain Various Hand over mechanisms in Details.	
c)	Write a Short Note on UTRAN and UMTS Network	

Q3	Solve any Two	10 marks each
a)	Explain IP Packet Delivery, What do you mean by Agent Discovery and Agent Advertisement in terms of Mobile N/w	
b)	Explain GSM Architecture in Detail.	
c)	Explain signal Propagation in detail with various effects such as shadowing, Reflection, Refraction, scatter, multipath propagation	

Q4	Solve any Two	10 marks each
a)	Write a brief description on Various Generations of Telecommunication, Describe various applications of mobile devices for Vehicles, Emergency situation, Business, Entertainment.	
b)	Write a Short Note on a) HAWAII b) HMIPv6	
c)	What are the various Wireless LAN Threats and How we can secure the wireless Networks	