

University of Mumbai
Examination June 2021

Examinations Commencing from 1st June 2021

Program: **TE ELECTRONICS**

Curriculum Scheme: Rev2016 Examination: TE Semester VI

Course Code: ELXDLO6023 and Course Name: WIRELESS COMMUNICATION

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Who sets the standards of GSM?
Option A:	ITU
Option B:	AT & T
Option C:	ETSI
Option D:	USDC
2.	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
3.	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
4.	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
5.	Which of the following is used by IS-95?
Option A:	DSSS
Option B:	FHSS
Option C:	THSS
Option D:	HYBRID
6.	IS-95 is specified for reverse link operation in _____ band.
Option A:	869-894 MHz
Option B:	849-894 MHz
Option C:	849-869 MHz

Option D:	824-849 MHz
7.	_____ are used to resolve and combine multipath components.
Option A:	Equalizer
Option B:	Registers
Option C:	RAKE receiver
Option D:	Frequency divider
8.	A GPRS Network is a part of _____ in GSM network.
Option A:	BTS
Option B:	BSS
Option C:	NSS
Option D:	VLR
9.	What is the interface between BSC and SGSN in a GPRS Network Structure?
Option A:	Ga
Option B:	Gb
Option C:	Gc
Option D:	Gd
10.	What is the full form of GPRS?
Option A:	GSM Packet Service
Option B:	Global Packet Service
Option C:	General Packet Service
Option D:	General Packet Switching
11.	The _____ indicates which modulation scheme should be used to receive the incoming MAC protocol data unit(MPDU)
Option A:	SYNC field
Option B:	service field
Option C:	signal field
Option D:	CRC field
12.	_____ MAC schemes improve throughput and response time when traffic is heavy.
Option A:	Random
Option B:	Deterministic
Option C:	Mixed
Option D:	Schocastic

13.	Which of the following is not a advantage of IEEE 802.16?
Option A:	Last mile connectivity
Option B:	Roaming between networks
Option C:	Flexibility
Option D:	Simplicity
14.	_____ is a separate radio system that is designed to either supplement or replace the existing broadband Internet distribution systems.
Option A:	Wi-Fi
Option B:	WiMAX
Option C:	Bluetooth
Option D:	Zigbee
15.	A distributed WiMAX network architecture can be significantly ____ & _____ to install compared with traditional cellular-based network designs, and it can substantially reduce capital and operational expenses
Option A:	Lighter , easier
Option B:	Lighter, complex
Option C:	Heavier, easier
Option D:	Heavier, complex
16.	_____ refers to the connection from the access point to the BS and from the BS to the core network
Option A:	Forward channel

Option B:	Reverse channel
Option C:	Backhaul
Option D:	Control channel
17.	_____ networks can range from wireless mobile networks to sensor networks, allowing short-range and long-range communication
Option A:	Wireless ad hoc
Option B:	Wired ad hoc
Option C:	Sensor
Option D:	Local area
18.	Which of the following is not a quantitative feature of wireless ad hoc network?
Option A:	Network settling time
Option B:	Knowledge of nodal locations
Option C:	Memory byte requirement
Option D:	Network recovery time
19.	A _____ is a self-configuring network of mobile routers (and associated hosts) connected by wireless links – the union of which form an arbitrary topology.
Option A:	VANET
Option B:	WAN
Option C:	MANET
Option D:	MAN
20.	In _____ communication, all the hosts are in one coverage area; thus communication is direct from host to host.
Option A:	Multihop
Option B:	Wired

Option C:	Wireless
Option D:	single-hop

Q2	
A	Solve any Two 5 marks each
i.	<i>Explain the concept of frequency reuse.</i>
ii.	<i>State the advantages of GPRS over GSM technology</i>
iii.	Explain what is a cell.
B	Solve any One each 10 marks
i.	<i>Differentiate between GSM and GPRS.</i>
ii.	<i>Write a note on CDMA 2000.</i>

Q.3	
A	Solve any Two 5 marks each
i.	<i>What are the different channel assignment strategies.</i>
ii.	<i>Explain Fading and its types.</i>
iii.	Compare between 3G and 4G.
B	Solve any One each 10 marks
i.	<i>Draw and explain the GSM architecture.</i>
ii.	<i>Write a note on IS95.</i>