

# University of Mumbai

## Examination 2020 under cluster 4 (PCE)

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Rev2016

Examination: Fourth Year Semester VII

Course Code: ECC702 and Course Name: Mobile Communication System

Time: 1 hour

Max. Marks: 50

Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	For 60 degree sectoring how many sectors?
Option A:	9
Option B:	6
Option C:	4
Option D:	3
Q2.	If the average request rate is 3 calls per hour for 2 minute time duration, then calculate the traffic intensity.
Option A:	0.5 Erlangs
Option B:	0.2 Erlangs
Option C:	0.01 Erlangs
Option D:	0.1 Erlangs
Q3.	Average duration of typical call is called as
Option A:	Request Rate
Option B:	Holding time
Option C:	Traffic Intensity
Option D:	Setup Time
Q4.	The technique to provide large area coverage for high speed users while providing small area coverage to users travelling at low speed
Option A:	Umbrella cell approach
Option B:	Cell splitting
Option C:	Sectoring
Option D:	Microcell Zone Concept
Q5.	Which factor is responsible for the attenuation of received power?
Option A:	Inert loss
Option B:	Path loss
Option C:	Distance loss
Option D:	Path and Free space loss
Q6.	To allow many users to share simultaneously a finite amount of radio spectrum resources is called
Option A:	Multiple access technique
Option B:	Multiplexing technique
Option C:	FDM
Option D:	TDM
Q7.	Which surface produce scattered waves ?
Option A:	Smooth surface

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Option B:	Shadow region
Option C:	Horizon
Option D:	Rough surface
Q8.	Link budget calculation is related to _____
Option A:	Transmitted power
Option B:	Received power
Option C:	Gain and losses from the transmitter
Option D:	Transmitted and Received power
Q9.	The world's first cellular system to specify digital modulation and network level architecture
Option A:	AMPS
Option B:	GSM
Option C:	CDMA
Option D:	IS-54
Q10.	US digital cellular system based on CDMA was standardized as
Option A:	IS-54
Option B:	IS-136
Option C:	IS-95
Option D:	IS-77
Q11.	What is the name of the web browsing format language supported by 2.5G technology
Option A:	Wireless Application Protocol
Option B:	Hypertext Markup Language
Option C:	Extensible Markup Language
Option D:	Hypertext Transfer Protocol
Q12.	Which of the following is not a TDMA standard of 2.5G network
Option A:	HSCSD
Option B:	GPRS
Option C:	EDGE
Option D:	GSM
Q13.	In which handoff, a mobile station communicates with two base stations at a time?
Option A:	soft
Option B:	hard
Option C:	medium
Option D:	difficult
Q14.	GPRS and EDGE supports which 2G standard?
Option A:	GSM only
Option B:	IS-136 only
Option C:	GSM and IS-136 both
Option D:	PDC
Q15.	What does the number 2000 in IMT-2000 signifies?
Option A:	Number of cells

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Option B:	Year
Option C:	Area (km)
Option D:	Number of subscribers per cell
Q16.	How much increase in spectral efficiency is provided by W-CDMA in comparison to GSM?
Option A:	Two times
Option B:	Three times
Option C:	Six times
Option D:	No increase
Q17.	What is the minimum data speed offered by 3G mobile technology for a Stationary user?
Option A:	128 kbps
Option B:	384 kbps
Option C:	2 Mbps
Option D:	8 Mbps
Q18.	LTE standard is developed by _____
Option A:	ETA
Option B:	UMTS
Option C:	3GPP2
Option D:	3GPP
Q19.	What is the carrier bandwidth in a typical 3G WCDMA based network?
Option A:	1.4 MHz
Option B:	20 MHz
Option C:	5 MHz
Option D:	10 MHz
Q20.	Resources can be allocated to the UE after every _____
Option A:	bit
Option B:	sub frame
Option C:	frame
Option D:	slot
Q21.	In 4G LTE network, the round trip latency between a mobile phone and base station is _____ ms
Option A:	100
Option B:	10
Option C:	5
Option D:	1
Q22.	MIMO stands for _____
Option A:	Many input many output
Option B:	Multiple input multiple output
Option C:	Major input minor output
Option D:	Minor input minor output

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Q23.	_____ is a transmission method used in MIMO wireless communications to transmit encoded data signals independently.
Option A:	STTD
Option B:	SM
Option C:	Collaborative Uplink MIMO
Option D:	MU-MIMO
Q24.	Drawbacks of SDR
Option A:	Difficulty in writing software for various applications
Option B:	Can't able to support different networks
Option C:	Does not provide benefits to the manufacturers
Option D:	Complex network
Q25.	In wireless multi-hop networks, nodes communicate with each other using
Option A:	wired channels
Option B:	wireless channels
Option C:	common infrastructure
Option D:	CDMA

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	B
Q2.	D
Q3.	B
Q4	A
Q5	D
Q6	A
Q7	D
Q8.	C
Q9.	B
Q10.	C
Q11.	A
Q12.	D
Q13.	A
Q14.	C
Q15.	B
Q16.	C
Q17.	C
Q18.	D
Q19.	C
Q20.	B
Q21.	A
Q22.	B
Q23.	B
Q24.	A
Q25.	B