Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2012

Examination: Final Year Semester: VII

Course Code: ETC 702 and Course Name: Mobile Communication

Time: 1 hour

Max. Marks: 50

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

Q1.	In GSM900 with FDM: 124 frequencies Up/down and TDM:8 slots/channel. The
	maximum active users are
Option A:	124/8
Option B:	8/124
Option C:	124*8
Option D:	124*8/124
Q2.	If the channel data rate in GSM is 270.833Kbps and data rate 9.6kbps, then bit
	duration will be
Option A:	10.4 mS
Option B:	3.69 mS
Option C:	0.577 mS
Option D:	4.615mS
Q3.	A DSSS system has a 48 Mcps code rate and 4.8 kbps information data rate. The
	processing gain is computed to be
Option A:	4.8dB
Option B:	40dB
Option C:	48dB
Option D:	60dB
Q4.	Generally the soft handoff procedure involves cell site(s).
Option A:	2
Option B:	3
Option C:	6
Option D:	Several
Q5.	As part of Closed Loop Power Control followed by a WCDMA network, power
	control bits are sent every milliseconds to the User Equipment (Phones).
Option A:	0.1 ms
Option B:	0.66 ms
Option C:	1.5 ms
Option D:	2.5 ms

Q6.	IS-95 reverse link operation band is specified as
Option A:	869:894 MHz
Option B:	849:894 MHz
Option C:	849:869 MHz
Option D:	824:849 MHz
Q7.	Interface between RNC and SGSN?
Option A:	Lu
Option B:	LC
Option C:	Lm
Option D:	Lg
Q8.	OVSF in UMTS is
Option A:	Orthogonal Variable Spreading Factor
Option B:	Open Voltage Scale Frequency
Option C:	Omni directional variable spreading factor
Option D:	Output Vectored Sequence Factor
Q9.	The reasons of using OFDM in 4G systems
Option A:	Better performance against time dispersion
Option B:	Better performance against frequency selectivity
Option C:	The design for an equalizer is easier for bandwidths larger than 5 MHz
Option D:	It can perform well even at the edge of a cell
Q10.	MIMO stands for
Option A:	Multiple input multiple output
Option B:	Many input many output
Option C:	Major input minor output
Option D:	Minor input minor output
011	ACLITE is times foster than 20
QII. Option A:	4G LTE IS times faster than 3G.
Option A.	5
Option 6:	10
Option D:	20
Option D.	
012	Which application is not enabled by cognitive radio
Ontion A:	Cellular data boost
Option R:	Machine to machine communication
Option C:	Non synthetic MIMO
Option D	Dynamic spectrum access
013.	UMTS stands for and it belongs to
Option A:	Universal Mobile Telecommunications System and 3G
Option B:	Universal Mobile Telecommunications System and 4G

Option C:	Universal Mini Telecommunications System and 3G
Option D:	Universal Mobile Telecommunications System and 2G
Q14.	Which of the following is the interfaces in the LTE access network
Option A:	X2
Option B:	Abis
Option C:	Α
Option D:	52
Q15.	In LTE, the OFDMA solution leads to Peak-to-Average Power Ratio (PAPR)
	requiring expensive power amplifiers with high requirements on linearity,
	increasing the power consumption for the sender.
Option A:	high
Option B:	low
Option C:	positive
Option D:	negative
Q16.	In LTE the number of channels as compare to UMTS are
Option A:	increased
Option B:	decreased
Option C:	equal
Option D:	not related
Q17.	Voice channels that are supported for each 200KHz channel in GSM
Option A:	5
Option B:	8
Option C:	12
Option D:	24
Q18.	Neighboring stations are assigned different group of channels in cellular system
Option A:	To maximize throughput
Option B:	To maximize capacity of each cell
Option C:	To minimize interference
Option D:	To minimize area
Q19.	Shape of the cell which is universally adopted
Option A:	Hexagon
Option B:	Triangle
Option C:	Circle
Option D:	Square
Q20.	One Erlang represents
Option A:	Many calls- hour per hour
Option B:	One call- hour per hour
Option C:	One call- hour per minute
Option D:	One call-minute per hour

Q21.	Path loss exponent indicates
Option A:	The rate at which path loss increases with distance
Option B:	The rate at which path loss decreases with distance
Option C:	The rate at which path loss increases with power density
Option D:	The rate at which path loss decreases with power density
Q22.	Which does not belong to propagation mechanism
Option A:	Reflection
Option B:	Diffraction
Option C:	Scattering
Option D:	Refraction
Q23.	Interference due to 2 or more versions of transmitted signal is
Option A:	Fading
Option B:	Co-channel interference
Option C:	Adjacent channel interference
Option D:	Multipath
Q24.	Doppler shift is directly proportional to
Option A:	Mobile Velocity
Option B:	Power of receiving antenna
Option C:	Power of transmitting antenna
Option D:	Height of antenna
Q25.	Choose the correct Multiple access technique
Option A:	FDMA in AMPS and TDMA in GSM
Option B:	TDMA in AMPS and FDMA in GSM
Option C:	FDMA in AMPS and GSM
Option D:	TDMA is used in both GSM and AMPS