University of Mumbai
Program: Computer Engineering
Curriculum Scheme: Rev2016
Examination: BE Semester VII
Course Code: CSC702 and Course Name: Mobile Communication and Computing
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.	DSSS system spreads the baseband signal by _____ the baseband pulses with a pseudo noise sequence.
Option A:	Adding
Option B:	Subtracting
Option C:	Dividing
Option D:	Multiplying
2.	Which of these statements is true about VLR (Visitor Location Register)
Option A:	VLR is always integrated with MSC
Option B:	VLR is always integrated with BSC
Option C:	VLR is always integrated with Mobile Station
Option D:	VLR is always integrated with a PSTN Network
3.	3G W-CDMA is also known as _____
Option A:	DECT
Option B:	ETACS
Option C:	UMTS
Option D:	NAMPS
4.	Which network MN belongs to, is a subnet with respect to its IP address?
Option A:	Correspondent Network
Option B:	Home Network
Option C:	Foreign Network
Option D:	Care of Network
5.	Which of the following segments a TCP connection into a fixed part and a wireless part?
Option A:	Direct TCP
Option B:	Classical TCP
Option C:	Wireless TCP
Option D:	Indirect TCP
6.	Within the mobile station MS, the _____ performs all network specific tasks (TDMA, FDMA, coding etc.) and offers an interface for data transmission (S) to the terminal TE which can then be network independent.
Option A:	Mobile terminal (MT)
Option B:	Mobile termination (MT)
Option C:	Model termination (MT)
Option D:	Model Terminal (MT)

7.	Algorithm A8 is used for _____
Option A:	Encryption
Option B:	Decryption
Option C:	Authentication
Option D:	Generation of a cipher key
8.	Registration uses _____ protocol over IP
Option A:	TCP
Option B:	IP
Option C:	ICMP
Option D:	UDP
9.	A GSM cell can measure between some 100 m and _____ depending on the environment (buildings, open space, mountains etc.)
Option A:	35 km
Option B:	35m
Option C:	100m
Option D:	350km
10.	_____ is very small compared to the data transmission, so the probability of a collision is must lower.
Option A:	CTS
Option B:	RTS
Option C:	ETS
Option D:	PTS

Q2. (20 Marks)	Solve any Two Questions out of Three 10 marks each
A	Differentiate between DSSS and FHSS
B	What are the different types of Handovers supported by GSM? Explain in detail.
C	Draw a high-level architecture of LTE. Explain in short, the functions of EPC component

Q3. (20 Marks)	Solve any Two Questions out of Three 10 marks each
A	Draw a system architecture of GPRS. What is the role of SGSN, GR and GGSN Components?
B	What is Snooping TCP? List advantages and disadvantages of Snooping TCP.
C	What do you mean by Self Organizing Networks? Explain different types of SON.

Q4. (20 Marks)	Solve any Two Questions out of Three		10 marks each
A	Explain Piconet and scatternet with respect to Bluetooth protocol.		
B	Discuss how tunneling work for mobile IP using IP in IP Encapsulation.		
C	Discuss the functions of authentication and encryption in GSM? How is system security maintained?		