Reg.No. _____

Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – Nov/Dec – 2016

Code : 14CS2064
Sub. Name : Mobile Computing

Semester : 2016-17 ODD
Duration : 3hrs
Max. marks : 100

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	Describe what is multiple access? Describe FDMA, TDMA, CDMA and SDMA with application areas and examples.	CO3	**15**
	b.	What are the functional differences between first generation, second generation and third generation of networks?	CO2	**5**
		(OR)		
2.	a.	What are the different tiers in three tier architecture? Describe the functions of these tiers.	CO3	**20**
3.	a.	Describe the GSM architecture. Describe different elements in this architecture.	CO3	**15**
	b.	Write the functionalities of SGSN and GGSN in GPRS network.	CO2	**5**
		(OR)		
4.	a.	How is authentication done in a GSM network?	CO2	**5**
	b.	Explain the functional architecture of Short Message Service with neat diagram.	CO3	**15**
5.	a.	Describe the WAP protocol stack. What are the functions of the different layers in this protocol stacks?	CO3	**15**
	b.	Draw and explain pull versus push technology.	CO2	**5**
		(OR)		
6.	a.	What is Direct Sequence Spread Spectrum technology? Explain how it works in the Code Division Multiple Access technology.	CO3	**15**
	b.	Write the advantages and disadvantages of wireless LAN.	CO2	**5**
7.	a.	Explain the functional architecture of Symbian operating system with neat diagram.	CO3	**20**
		(OR)		
8.	a.	Compare Adhoc network with infrastructure network.	CO2	**5**
	b.	Describe the IS-95 architecture. Compare this architecture with GSM architecture.	CO3	**15**
		Compulsory:		
9.	a.	Given two prime numbers P=7 and Q=17, Find out n, e and d in an RSA encryption process.	CO3	**14**
	b.	Write the difference between mobile virus and mobile worm.	CO2	**4**
	c.	What is denial of service?	CO1	**2**

ALL THE BEST

CO1: To introduce the fundamental principles of mobile computing.
CO2: To apply knowledge on mobile communication and wireless networking.
CO3: To describe the various mobile services and applications