	Utech
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Invigilator's Signature :	• • • • • • • • • • • • • • • • • • • •

## CS/M.Tech(IT-SE)/SEM-3/MSE-303D/2011-12 2011

## **MOBILE COMMUNICATION**

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

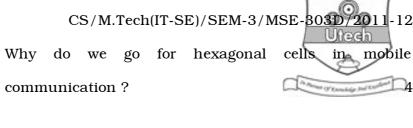
Candidates are required to give their answers in their own words as far as practicable.

Answer any *five* questions.  $5 \times 14 = 70$ 

- Describe GSM services and with a suitable diagram, describe different architectural components.
  6 + 8
- 2. In GSM architecture, describe the role of SIM, taking into account the network authentication machanism and also the security mechanism. 2+4+8
- 3. a) Describe the role of the following: 4
  - i) PIN
  - ii) PUK
  - iii) HLR
  - iv) VLR.

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	b)	Describe the three types of services in GSM. 2	× 3
	c)	What are IMSI, MSISDN, IMEI and TMST? 4	× 1
4.	a)	What are the advantages of WLAN?	5
	b)	What are its disadvantages?	5
	c)	What are the artefacts of designing a Wireless LAN?	4
5.	a)	Describe IEEE 802-11g protocol stack.	10
	b)	How does it differ from JrDA in respect of advantage	ges
		and disadvantages?	4
6.	a)	Describe IEEE 802.15 stack.	10
	b)	What are different services that a standard Bluetoo	oth
		stack offers?	4
7.	a)	Describe SDP, SPP, DUN. 3	× 4
	b)	What is an AP?	2
8.	a)	Describe the security mechanism of Bluetooth	
		( IEEE 802.15 ).	12
	b)	What is JSR-82?	2



b) Deduce the emperical formula of co-channels. 4

9.

c) What is mobile TCP?

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