Code No: **R41054** **R10** **Set No. 1**

IV B.Tech I Semester Regular/Supplementary Examinations, Nov/Dec - 2015

MOBILE COMPUTING

(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks
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1	a)	Discuss about mobile computing and mention some novel applications.	[8]
	b)	Explain different types of networks which are used in mobile computing.	[7]
2		Give the neat sketch of GSM structure with subsystems. List and explain the various databases maintained. Explain how they are useful.	[15]
3	a)	What is reuse factor? Explain whether a low or a high reuse factor is better.	[8]
	b)	Describe the limitations of mobile devices.	[7]
4	a)	Describe about IMT-20003G wireless communication standards.	[8]
	b)	Describe broadband wireless access.	[7]
5	a)	How the TCP is used in mobile computing environment. Discuss in detail about mobile TCP.	[9]
	b)	Explain the working of mobile IP.	[6]
6	a)	Discuss in detail about Synchronization in mobile computing systems.	[8]
	b)	Describe about personal information manager.	[7]
7	a)	Distinguish the MANETs from cellular mobile networks.	[8]
	b)	List out the applications of wireless sensor networks.	[7]
8	a)	Discuss in detail wireless session protocol.	[8]
	b)	What are the advantages and disadvantages of WLANs?	[7]

Code No: **R41054** **R10** **Set No. 2**

IV B.Tech I Semester Regular/Supplementary Examinations, Nov/Dec - 2015

MOBILE COMPUTING

(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

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1	a)	Explain the mobile computing architecture for a mobile device.	[8]
	b)	Describe the novel applications of a mobile computing system.	[7]
2	a)	Describe about the protocol architecture of GSM.	[10]
	b)	Explain the security services of GSM.	[5]
3	a)	What is reuse factor? Explain whether a low or a high reuse factor is better.	[8]
	b)	Write short notes on Smart systems.	[7]
4	a)	Explain CDMA 3G communication standards.	[8]
	b)	Describe in detail about 4G networks.	[7]
5	a)	Explain the mechanism for IP packet delivery using mobile IP concept.	[8]
	b)	Write short notes on agent discovery.	[7]
6	a)	Discuss in detail about usage models for synchronization in mobile application	[8]
	b)	Describe domain-dependant specific rules for data synchronization.	[7]
7	a)	Distinguish between infrastructure and ad hoc networks.	[8]
	b)	List out the properties of MANETs.	[7]
8	a)	Discuss in detail wireless datagram protocol.	[8]
	b)	What are the advantages and disadvantages of WLANs?	[7]

Code No: **R41054** **R10** **Set No. 3**

IV B.Tech I Semester Regular/Supplementary Examinations, Nov/Dec - 2015

MOBILE COMPUTING

(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

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1	a)	Explain the standards for voice-oriented data communication.	[8]
	b)	Explain the modulation methods and standards for data and voice communication.	[7]
2	a)	What is reuse factor? Explain whether a low or a high reuse factor is better.	[8]
	b)	Describe the limitations of mobile devices.	[7]
3	a)	Describe the TDMA frame structure used by GSM.	[8]
	b)	Describe the message flow for MTC.	[7]
4	a)	List and explain the multiplexing techniques.	[8]
	b)	Describe in detail about coding methods.	[7]
5	a)	How the TCP is used in mobile computing environment. Discuss in detail about mobile TCP.	[9]
	b)	Discuss about mobile internet protocol.	[6]
6	a)	Discuss in detail about Synchronization in mobile computing systems.	[8]
	b)	Describe about application server.	[7]
7	a)	Distinguish the MANETs from cellular mobile networks.	[8]
	b)	Discuss about security in ad hoc networks.	[7]
8	a)	Draw and discuss the protocol architecture of WAP.	[8]
	b)	What are the advantages and disadvantages of WLANs?	[7]

Code No: **R41054** **R10** **Set No. 4**

IV B.Tech I Semester Regular/Supplementary Examinations, Nov/Dec - 2015

MOBILE COMPUTING

(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

*****

1	a)	Explain the architecture of mobile computing.	[8]
	b)	Explain different types of networks which are used in mobile computing.	[7]
2	a)	What is reuse factor? Explain whether a low or a high reuse factor is better.	[8]
	b)	Write short notes on Smart systems.	[7]
3	a)	Describe the GSM structure of time using a frame hierarchy.	[7]
	b)	Discuss the various steps in mobile terminated call.	[8]
4	a)	What are the benefits of spread spectrum? Describe frequency hopping spread spectrum.	[8]
	b)	Describe about WCDMA.	[7]
5	a)	Explain the mechanism for IP packet delivery using mobile IP concept.	[8]
	b)	Write short notes on agent discovery.	[7]
6	a)	Discuss the working of mobile agents. For what types of applications mobile agents are suitable?	[8]
	b)	Describe about personal information manager.	[7]
7	a)	Distinguish between infrastructure and ad hoc networks.	[8]
	b)	Describe the role of spectrum in MANETs.	[7]
8	a)	Draw and discuss the protocol architecture of IEEE 802.11.	[8]
	b)	Explain the session establishment in WSP/B.	[7]