

Total No. of Questions : 8]
P3202

SEAT No. :

[Total No. of Pages : 2

[5670]-304
B.E. (Computer Engineering)
Mobile Computing
(Elective - III) (Semester - II) (2012 Pattern)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data if necessary.*

- Q1)** a) Write down IEEE standards for WPAN, WLAN and WiMAX with their scale (coverage area) [6]
- b) Explain mobile computing architectural layers. [7]
- c) Explain GSM Network Architecture. [7]

OR

- Q2)** a) Explain wireless networks architecture. [7]
- b) Why security is very important in wireless networks? Discuss symmetric and asymmetric cryptographic algorithms. [6]
- c) List various services provided by GSM networks. Explain teleservices in details. [7]

- Q3)** a) Explain Snooping TCP. Give the advantages and disadvantages of Snooping TCP. [8]
- b) Explain the role of home agent and foreign agent in Mobile IP networks. [8]

OR

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- Q4)** a) What are the security threats to a MANET? Why a MANET faces greater security threats than a fixed infrastructure network? [8]
- b) What is the need of tunneling in Mobile IP networks? Explain any one tunneling type. [8]
- Q5)** a) What are the different types of data synchronizations in mobile computing systems? Describe synchronization usage models in mobile applications. [8]
- b) What do you mean by synchronoinization softwares? Explain ActiveSync software in details. [9]

OR

- Q6)** a) Show architecture for data dissemination and broadcast. Explain the reason for communication asymmetry in mobile network. [8]
- b) What do you mean by synchronization protocols? Explain Bluetooth - enabled computing systems Synchronization. [9]
- Q7)** a) Explain Mobile - agent - based architecture. [8]
- b) Explain the role of a gateway in connecting networks using different protocols. Describe a Residential Gateway architecture. [9]

OR

- Q8)** a) List and Explain Various operating Systems used as Mobile OS. [9]
- b) Explain with figure an application - server - based N - tier architecture ($N \geq 3$) [8]

