Total No. of Questions : 10]

SEAT No. :

P3228

[Total No. of Pages : 2

[5354]-684

B.E. (Computer Engineering)

MOBILE COMPUTING (Elective - III)

(2012 Pattern)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8 and Q9 or Q10***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Assume suitable data if necessary.***

Q1) a) What is the need of spread spectrum technology? Explain DSSS with one example **[5]**

b) Describe mobile computing architecture with neat diagram. **[5]**

OR

Q2) a) Differentiate between different wireless switching techniques. **[5]**

b) Explain in detail GSM network architecture. **[5]**

Q3) a) Explain with a neat diagram GSM network interfaces and protocols. **[5]**

b) Compare TDMA and FDMA systems. **[5]**

OR

Q4) a) What is handover? When handover in mobile communication takes place? **[5]**

b) How the next generation wireless technologies are different than 3G technologies. **[5]**

Q5) a) What is basic purpose of DHCP? Name the entities of DHCP. **[6]**

b) Explain tunneling and encapsulation in mobile IP. **[6]**

c) Explain in detail the differences between AODV and the standard distance vector algorithms. **[6]**

OR

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Q6) a) What is tunneling ? How does a tunnel differ from a route? **[6]**

b) Explain Snooping TCP. Give the advantages and disadvantages of Snooping TCP. **[6]**

c) What are the security threats to a MANET ? Why a MANET faces greater security threats than a fixed infrastructure network? **[6]**

Q7) a) Describe pull-based data-delivery mechanism in detail . What are the advantages and disadvantages of pull-based data-delivery? **[8]**

b) What are the different types of data synchronizations in mobile computing systems? Describe synchronization usage models in mobile applications. **[8]**

OR

Q8) a) What is selective tuning? Discuss the methods used for selective tuning. **[8]**

b) Explain what is synchronization protocol? Explain how Bluetooth synchronizes mobile applications. **[8]**

Q9) a) What is mobile agent? What are advantages of using a mobile agent. **[8]**

b) Write Short note on **[8]**

i) Difference between iOS and Android OS.

ii) Service discovery and device management in mobile O.S.

OR

Q10)a) Explain what is gateway? Describe a transcoding gateway and its applications in mobile computing systems. **[8]**

b) Write Short note on **[8]**

i) Functions of Application Server.

ii) Requirement of Mobile File System.

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