(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 110857 Roll No. | | | | | | | | | |

B.Tech.

(SEM. VIII) THEORY EXAMINATION 2013-14

MOBILE COMPUTING

Time : 3 Hours *Total Marks : 100*

Note :—Attempt all questions. All questions carry equal marks.

1. Attempt any **four** parts : **(4×5=20)**

   (a) What are the various characteristics of mobile computing environment ? Discuss challenges being faced to support mobile computing.

   (b) What do you mean by Handover ? Explain the reasons why the handover occurrs and also describe the procedure of Handover.

   (c) Compare different generations of the Wireless Communication.

   (d) What do you mean by cell in cellular concept and why the cell of cellular architecture is hexagon ?

   (e) Write down the issues of mobile computing.

   (f) In context to cellular networks, explain the following terms :

      (a) GPRS

      (b) LOCATION MANAGEMENT with HLR-VLR.

2. Attempt any **four** parts : **(4×5=20)**

   (a) What is Bluetooth ? What are the functions of different layer Bluetooth protocol stack ? Also discuss the concept of Bluetooth profile.

   (b) Discuss the basic principle of WAP protocol architecture. Write down the applications of WAP.

   (c) "CSMA/CD is not suitable protocol for wireless LAN". Give reasons in favour of or against the statement ?

   (d) Draw and define 802.11 protocol stack regarding the following points :

      (i) Physical layer

      (ii) Mac sub layer protocol

      (iii) Frame Structure.

   (e) What kind of problem may arise, if TCP is implemented over wireless networks ? Explain.

   (f) List the entities of Mobile IP and describe data transfer from a mobile node to a fixed node and vice-versa. Why and Where is encapsulation needed ?

3. Attempt any **two** parts : **(2×10=20)**

   (a) How does mobility affect data replication when we consider replicating on mobile platform ?

   (b) What is multicluster architecture ? Discuss any one algorithm required to partition the network into several clusters.

https://quescol.com | Free PYQs, Solutions, Syllabus, Notes etc

(c) What do you mean by CODA file system and also explain the clients in CODA ? How are Disconnected Operations performed in CODA ?

4. Attempt any two parts : (2×10=20)

(a) Discuss the schemes of mobile transaction management. List out various issues concerned to transaction management.

(b) Describe Fault Tolerance in mobile computing environment in detail.

(c) What do you mean by online transaction processing ? Explain various mobile transaction models.

5. Attempt any two parts : (2×10=20)

(a) Why is routing in adhoc network complicated, what are special challenges ? Give some examples of adhoc network.

(b) Describe any two of the following :

(i) DSDV

(ii) DSR

(iii) DVR.

(c) Name the main differences between Adhoc network and other network. What advantages do Adhoc networks offer ? Explain in detail by giving suitable example.

https://quescol.com | Free PYQs, Solutions, Syllabus, Notes etc