PAPER ID-410537

Subject Code: KCS711

Roll No: | | | | | | | | | | | | | |

B. TECH.
(SEM VII) THEORY EXAMINATION 2021-22
MOBILE COMPUTING

Time: 3 Hours *Total Marks: 100*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **2 x 10 = 20**

a. What are HLR and VLR in mobile computing?

b. n?

c. Explain near and Far Problem in context to cellular network.

d. What is Mobile IP?

e. What is adaptive clustering?

f. What is Bluetooth?

g. What is Wireless Application Protocol?

h.

i. Define Fisheye state routing.

j. Describe Temporary Ordered Routing Algorithm (TORA) in brief.

SECTION B

2. Attempt any *three* of the following: **10 x 3 = 30**

a. What is General Packet Radio Service (GPRS)? Describe its architecture in detail.

b. Describe the architecture, protocol stack and applications of Wireless Application Protocol.

c. What is Data replication? Describe the replication strategies in detail.

d. Discuss challenges in transaction processing. What are the counter measures to security threats in mobile computing environment?

e. What do you understand by Mobile Ad-Hoc Networks (MANET)? Describe some real life scenarios where it can be used.

SECTION C

3. Attempt any *one* part of the following: **10 x 1 = 10**

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

(b) Compare SDMA, TDMA, FDMA and CDMA in terms of transmission techniques, signal separation and applications?

4. Attempt any *one* part of the following: **10 x 1 = 10**

(a) With neat sketch, explain architecture of 802.11 LAN and explain its MAC Logic.

(b) Why does traditional TCP not perform well in wireless network? Discuss different approaches for TCP improvement.

5. Attempt any *one* part of the following: **10 x 1 = 10**

(a) n detail.

(b) Describe the file system in mobile computing. How Disconnected Operations are performed in CODA file system?

6. Attempt any *one* part of the following: **10 x 1 = 10**

(a) Describe the Fault Tolerance issues involved in Mobile Computing? What is the Monitoring Process?

(b) Describe the characteristics and applications of Mobile agents. Why mobile agents are used?

7. Attempt any *one* part of the following: **10 x 1 = 10**

(a) Discuss the DSDV with example and differentiate it from AODV. Explain proactive, reactive routing protocol.

(b) What are the characteristics of MANET? Explain the process of Path Discovery and Path Maintenance in DSR Routing Protocols.