B. Tech.
(SEM. VIII) THEORY EXAMINATION 2011-12

MOBILE COMPUTING

Time : 3 Hours  Total Marks : 100

Note : Attempt all questions.

1. Attempt any two parts of the following :  
   \(10 \times 2 = 20\)
   (a) What do you understand by mobile computing? Discuss issues and challenges facing mobile computing today.
   (b) Discuss the architecture of GSM. Also explain the security issues to implement GSM.
   (c) Discuss the following in brief:
       (i) Code division multiple access (CDMA)
       (ii) GPRS.

2. Attempt any two parts of the following :  
   \(10 \times 2 = 20\)
   (a) Discuss the advantages and limitations of Bluetooth.
   (b) What is mobile IP? Discuss the goals of mobile IP. Also discuss the features of IPv4.
   (c) Discuss the following:
       (i) IEEE 802.11
       (ii) WAP applications.

3. Attempt any two parts of the following :  
   \(10 \times 2 = 20\)
   (a) Discuss the different data management issues with respect to mobile computing environments.
(b) What was the motivation for designing the CODA system? Discuss CODA file system in detail.

(c) What do you understand by clustering? How clustering is used for mobile wireless networks? Discuss.

4. Attempt any two parts of the following: (10*2=20)
   (a) Why security concerns in traditional systems are simple than those in mobile systems? Discuss.
   (b) Discuss the requirements for the design of mobile agent systems.
   (c) Discuss various issues which are related to transaction processing in mobile computing.

5. Write short notes on any two: (10*2=20)
   (a) Destination sequenced distance vector routing (DSDV)
   (b) Temporary ordered routing algorithm (TORA)
   (c) Issues and Challenges in Ad hoc Networks.