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13MCA443

Time: 3 hrs.

Max. Marks: 100

Note: *Answer any FIVE full questions.*

1 a. What is mobile computing? Explain the three–tier architecture for mobile computing with neat diagram. **(10 Marks)**
   b. Explain the design consideration for mobile computing. **(05 Marks)**
   c. What is security manager? Explain the component of security manager. **(05 Marks)**

2 a. Explain the concept of global system for mobile communication (GSM). What are the GSM entities? **(10 Marks)**
   b. Explain the strengths of SMS. What is SMMT and SMMO, explain with an example. **(10 Marks)**

3 a. Explain the GPRS system architecture with neat diagram. **(10 Marks)**
   b. What are the data services in GPRS? Explain with an example of a GPRS internet connection. **(10 Marks)**

4 a. What is direct spread spectrum technology? How does it works in CDMA technology. **(10 Marks)**
   b. Explain the major difference between GSM and IS–95. **(10 Marks)**

5 a. Explain the concept of mobile phone and their features. **(10 Marks)**
   b. Explain the concept of cellular IP, mobile IP with IPV6. **(10 Marks)**

6 a. What is smart client architecture for user interface and data storage? Explain it. **(10 Marks)**
   b. What is mobile operating system? Explain the process of deployment and development phase. **(10 Marks)**

7 a. Explain the concept of wireless application protocol(WAP) with appropriate examples. **(10 Marks)**
   b. What is thin client architecture? Explain with an example. **(10 Marks)**

8 Write the short notes on followings :
   a. CLDC
   b. MIDP
   c. GUI components
   d. Multimedia API's. **(20 Marks)**