

**ALCCS**

Time: 3 Hours

**JUNE2015**

Max. Marks: 100

**PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.**

**NOTE:**

- Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.
- Parts of a question should be answered at the same place.

- Q.1**
- a. Write down the functions of Data link layer in a wireless and mobile environment.
  - b. What do you know about 'Frequency division multiplexing'? Discuss briefly.
  - c. Why do we use CDMA systems?
  - d. Discuss briefly about DECT system.
  - e. Discuss the concept of handover in connection with the satellite communication system.
  - f. Digital Audio Broadcasting uses two basic transport mechanisms. Discuss them briefly
  - g. Write down four advantages of WLAN. (7×4)
- Q.2**
- a. What do you mean by Wi-Max? What are the advantage and disadvantage of Wi-Max over other wireless broadband? (10)
  - b. Describe the mobile IP operation with diagram. (8)
- Q.3**
- a. What are the handoff strategies? How these are used in transmission? (10)
  - b. Write short note on any two:
    - (i) HLR
    - (ii) VLR
    - (iii) EIR(8)
- Q.4**
- a. What are the main problems of signal propagation? Why do radio waves not always follow straight line? Why is reflection both useful & harmful? (10)
  - b. Recall the problem of hidden & exposed terminals. What happens in the case of such terminals if Aloha, slotted Aloha, reservation Aloha, or MAC is used? (8)

**Code: CT78**

**Subject: MOBILE COMPUTING**

- Q.5 a. How do IEEE 802.11, Hiper LAN 2, and Bluetooth, respectively, solve the hidden terminal problem? (10)
- b. What are the advantages & problems of forwarding mechanisms in Bluetooth Networks regarding security, power saving, and network stability? (8)
- Q.6 a. What do you understand by Broadcasting? Suggest, how could location based services and broadcast systems work together? (10)
- b. Define the following concepts in detail:  
 (i) Information Management  
 (ii) Mobile Database (8)
- Q.7 a. What are the major differences between WAP 2.0 and WAP 1.x? What influenced the WAP 2.0 development? (10)
- b. Explain the following: (Any Two) (4+4=8)
- (i) Indirect TCP  
 (ii) Ficus  
 (iii) WTP