

Con/2281-07.

(REVISED COURSE)

ND-9161

(3 Hours)

[ Total Marks : 100

N.B. (1) Question no. 1 is compulsory!

(2) Solve any four questions from remaining.

(3) Assume suitable additional data whenever necessary.

1.
  - a) Describe PLDCF specific protocol as defined in CDMA 2000 system.
  - b) Explain RAKE receiver.
  - c) What are the characteristics of Walsh sequence?
  - d) Explain FHSS used in the IEEE 802.11 (20)
  
2.
  - a) Draw the architecture of airloop WLL system. Explain each block in detail. (10)
  - b) Compare capacity of CDMA WLL cell with that of a CDMA cellular cell using following data.
    - Bandwidth = 1.23 MHz
    - Information rate = 9.6 Kbps
    - No. of sectors = 3
    - [ Eb / No ]<sub>wll</sub> = 4.5 dB
    - [ Eb / No ]<sub>cell</sub> = 7.5 dB
    - Voice activity factor = 0.5
    - Power control efficiency = 0.8
    - Three sector antenna gain = 2.7 (10)
  
3.
  - a) Explain different device states in Bluetooth. (08)
  - b) Which are error correction schemes used in Bluetooth? (06)
  - c) List different applications of WAP. (06)
  
4.
  - a) List forward link features for CDMA 2000. Explain each in brief. (10)
  - b) Different between CDMA 2000 and W- CDMA. (10)
  
5.
  - a) Explain different handoff parameters in IS-95 A. (10)
  - b) Compare----- Reverse link open loop power and reverse link closed loop power control in IS 95. (10)
  
6.
  - a) Explain authentication procedure in CDMA IS-95 call processing. (10)
  - b) Draw and explain architecture of WAP (10)
  
7. Write short notes (Any Four) (20)
  - a) TAG 5 – GSM 1900
  - b) Cell loading
  - c) Blue tooth security
  - d) OFDM
  - e) Pilot set maintenance