Progressive Education Society's

Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16, NEP 2020 (Autonomous)

End Semester Examination: OCT / NOV 2024

***Total No. of Questions**: 4/18* ***Total No. of Pages**: 2*

SECOND YEAR (Computer Science)
CELE 23201: Communication Systems for IOT
(Semester III)

Program: B.Sc.Com05 **Credits: 2**
Program Specific: B.Sc. Computer Science **Time: 2 Hours**
Course Type: Minor **Max. Marks: 30**
Paper: I **SET: A**

Instructions to the candidate:

1) *All questions are compulsory.*
2) *Figures to the right indicate full marks.*
3) *Draw a well labelled diagram wherever necessary.*

SECTION: A

Q1) Answer the following. **[5 X 1= 5]**

1. Define Full Duplex type of Communication.
2. Define BPSK
3. Define Baud rate
4. Define Dwell time of FHSS.
5. Define FSK

SECTION: B

Q2) Answer the following (Attempt any 5/7) **[5 X 2 =10]**

1. State Nyquist Theorem.
2. What is IOT?
3. Name three methods in Controlled Access Protocols.
4. Why encoding process is necessary during communication at transmitter end?
5. Write two advantages of spread spectrum techniques.
6. State two types of WAN.
7. State two reasons about the need of modulation.

SECTION: C

Q3) Answer the following/Write short notes on following (Attempt any 2/4) [2 X 5 = 10]

1. Explain concept of CDMA.
2. Describe QPSK concept with phasor and constellation diagram.
3. Explain slotted ALOHA random access protocol.
4. Explain hybrid topology of computer networks.

SECTION: D

Q4) Answer the following (Attempt any 1/2) [5 X 1 = 5]

1. Describe FDM transmitter end with a neat circuit diagram.
2. Explain reservation scheme in Controlled Access Protocol.

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