

## Question Bank (I- scheme)

**Name of Course: DIGITAL COMMUNICATION SYSTEM**

**Course code: (22428)**

**Semester:IV**

**Programme : EJ**

**Unit Test: II**

**Course - DCS**

### **Unit 3 Digital Modulation Techniques (16Marks)**

#### **2 Marks Questions**

- 1) List any 2 advantages of M-arry signaling over binary modulator
- 2) Define Coherent and Non coherent detection
- 3) Draw construction diagram for
  - a) QPSK
  - b) 8 QAM
- 4) Draw BPSK generator and it's wave forms
- 5) Compare BPSK and QPSK
- 6) State advantages of FSK

#### **4 Marks Questions**

- 7) State bandwidth requirement of
  - a) ASK
  - b) FSK
  - c) BPSK
  - d) QPSK
- 8) Draw block diagram of BASK generator and it's waveforms
- 9) Describe BFSK modulator with block diagram and waveforms
- 10) Draw Mary FSK modulator and demodulator
- 11) Explain working of BPSK demodulator with block diagram
- 12) Draw Mary PSK generator with block diagram
- 13) Explain working of BPSK demodulator with block diagram
- 14) Describe Mary PSK generator with block diagram
- 15) Describe QAM generator with block diagram
- 16) Compare a) ASK b) FSK c) BPSK
- 17) Compare QPSK and QAM
- 18) Draw ASK , FSK , BPSK , QPSK for the data 10010011
- 19) Draw block diagram of DPSK generator with waveforms

## **Unit 4 Multiplexing and Multiple Access Techniques (12 MARKS)**

### **2 Marks Questions**

- 1) State the classification of Multiplexing
- 2) State need of Multiplexing
- 3) Define TDM , FDM , CDM
- 4) State different types of multiple access techniques

### **4 Marks Questions**

- 5) Describe how does FDM combine multiple signals in to one explain with block diagram and waveforms.
- 6) State advantages and applications of FDM ( any 3 each )
- 7) Describe the synchronous of TDM with diagram state it's applications ( any 2 )
- 8) State any 4 advantages of TDM over FDM
- 9) With the help of block diagram explain CDM system
- 10) Compare FDM , TDM and CDM
- 11) Draw and explain T-carrier system
- 12) Draw and explain CCITT multiplexing hierarchy or E-carrier for TDM
- 13) State advantages of TDMA over FDMA
- 14) State advantages of CDMA and list it's services ( any 4 each )
- 15) Explain concept of CDMA with diagram
- 16) Compare FDMA , TDMA and CDMA

## **Unit 5 Spread Spectrum Modulation (08 MARKS)**

### **2 Marks Questions**

- 1) State two advantages of spread spectrum modulation over normal signal
- 2) Draw block diagram of spread spectrum modulation system
- 3) State any 4 applications of S.S. Modulation

### **4 Marks Questions**

- 1) Define PN sequence and draw PN Code generator for 7 bit long and draw waveforms for PN code
- 2) Explain DSSS with help of suitable block diagram and wave forms
- 3) Draw block diagram of FH/FSK system. State it's 2 advantages
- 4) Compare slow frequency hopping and fast frequency hopping
- 5) Compare DSSS and FHSS