**NAME-RESHMI GANGULY ECE 2017/106**

1. **In Binary Phase Shift Keying system, the binary symbols 1 and 0 are represented by carrier with phase shift of**  
   a) Π/2  
   b) Π  
   c) 2Π  
   d) 0

**Ans)-** b) Π

1. **BPSK system modulates at the rate of**  
   a) 1 bit/ symbol  
   b) 2 bit/ symbol  
   c) 4 bit/ symbol  
   d) None of the above

**Ans)-** a) 1 bit/ symbol

1. **The BPSK signal has +V volts and -V volts respectively to represent**  
   a) 1 and 0 logic levels  
   b) 11 and 00 logic levels  
   c) 10 and 01 logic levels  
   d) 00 and 11 logic levels

**Ans)-** a) 1 and 0 logic levels

1. **The binary waveform used to generate BPSK signal is encoded in**  
   a) Bipolar NRZ format  
   b) Manchester coding  
   c) Differential coding  
   d) None of the above

**Ans)** a) Bipolar NRZ format

1. **The bandwidth of BFSK is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ than BPSK.**  
   a) Lower  
   b) Same  
   c) Higher  
   d) Not predictable

**Ans)** c) Higher

1. **In Binary FSK, mark and space respectively represent**  
   a) 1 and 0  
   b) 0 and 1  
   c) 11 and 00  
   d) 00 and 11

**Ans)** a) 1 and 0

1. **The spectrum of BFSK may be viewed as the sum of**  
   a) Two ASK spectra  
   b) Two PSK spectra  
   c) Two FSK spectra  
   d) None of the above

**Ans)** a) Two ASK spectra

1. **The maximum bandwidth is occupied by**  
   a) ASK  
   b) BPSK  
   c) FSK  
   d) None of the above

**Ans)** c) FSK

1. **In MSK, the difference between the higher and lower frequency is**  
   a) Same as the bit rate  
   b) Half of the bit rate  
   c) Twice of the bit rate  
   d) Four time the bit rate

**Ans)** b) Half of the bit rate

1. **The technique that may be used to reduce the side band power is**  
   a) MSK  
   b) BPSK  
   c) Gaussian minimum shift keying  
   d) BFSK

**Ans)** c) Gaussian minimum shift keying

1. **In coherent detection of signals,**  
   a) Local carrier is generated  
   b) Carrier of frequency and phase as same as transmitted carrier is generated  
   c) The carrier is in synchronization with modulated carrier  
   d) All of the above

**Ans)** d) All of the above

1. **ISI may be removed by using**  
   a) Differential coding  
   b) Manchester coding  
   c) Polar NRZ  
   d) None of the above

**Ans)** a) Differential coding

1. **The information I contained in a message with probability of occurrence is given by (k is constant)**  
   a) I = k log21/P  
   b) I = k log2P  
   c) I = k log21/2P  
   d) I = k log21/P2

**Ans)** a) I = k log21/P

1. **Code rate r, k information bits and n as total bits, is defined as**  
   a) r= k/n  
   b) k=n/r  
   c) r=k\*n  
   d) n=r\*k

**Ans)** a) r= k/n

1. **The capacity of Gaussian channel is**  
   a) C= 2B(1+S/N) bits/s  
   b) C= B2(1+S/N) bits/s  
   c) C= B(1+S/N) bits/s  
   d) C= B(1+S/N)2 bits/s

**Ans)** c) C= B(1+S/N) bits/s

1. **OOK is a type of----- Modulation.**
2. ASK  
   b) PSK  
   c) FSK  
   d) QAM

**Ans)** a)ASK

1. **Coherent detection of binary ASK signal requires**  
   a) Phase synchronization  
   b) Timing synchronization  
   c) Amplitude synchronization  
   d) Both a) and b)

**Ans)** d) Both a) and b)

1. **External modulation for \_\_\_\_\_\_\_\_ modulation format allows the most sensitive coherent detection mechanism.**a) FSK  
   b) DSK  
   c) PSK  
   d) ASK

**Ans) c) PSK**

1. **\_\_\_\_\_\_\_\_\_ can potentially provide spectral conservation through the use of multilevel signalling.**
2. M-ary PSK  
   b) MFSK  
   c) ASK  
   d) DFSK

**Ans) a)** M-ary PSK

1. **FSK reception uses**a) Correlation receiver  
   b) PLL  
   c) Correlation receiver & PLL  
   d) None of the mentioned

**Ans)** **c) Correlation receiver & PLL**