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Roll No

MEDC-302(A)
M.E./M.Tech., III Semester
 Examination, November 2018
Advanced Digital Communication
 (Elective-I)
 Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
 ii) All questions carry equal marks.

1. a) Discuss the principle working of QPSK signal. Draw transmitter and receiver.
 b) Determine probability of error of BPSK signal.
2. a) Discuss the principle working of optimum receivers for PCM.
 b) Explain optimal detection and error probability for PAM signalling.
3. a) What do you mean by ISI and AWGN? Comment on optimal receivers for channels with ISI and AWGN.
 b) Comment on probability of error in detection PAM with zero ISI.
4. Explain the principle of FHSS system. Also explain
 - a) How acquisition is accomplished.
 - b) Tracking is performed in FHSS system.

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5. a) Discuss the working and performance of Direct sequence spread spectrum signals.
 b) What is inter carrier interference in OFDM? How it can be overcome.
6. a) Discuss the principle of adaptive decision feedback equalization.
 b) Differentiate linear equalization and decision feedback equalization.
7. a) Characterize fading of multipath channels.
 b) Discuss diversity techniques for fading multipath channels.
8. Write notes on any two:
 - a) Link budget analysis
 - b) Multi channel and multi carrier systems
 - c) Types of fading
