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Roll No

MEDC-302(A)
M.E./M.Tech., III Semester
Examination, December 2020
Advanced Digital Communication
(Elective-I)

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. Give a brief introduction to the modulation techniques like BPSK, BFSK and QPSK.
2. a) Explain about the optimum receivers for signals corrupted by AWGN.
b) Discuss about optimum receivers for PCM.
3. a) Discuss about estimation of signal parameters, carrier phase and symbol timing.
b) Determine probability of error in detection of PAM with zero ISI.
4. a) Discuss about the signal design for band limited channels and their characterization.
b) Discuss about modulation codes for spectrum spacing.
5. a) Discuss about optimum receivers for channels with ISI and AWGN.
b) Discuss about adaptive linear and adaptive decision feedback equalizer.

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6. a) Explain about the direct sequence spread spectrum signals.
b) Explain about the frequency hopped spread spectrum signals.
7. a) Discuss about the diversity techniques for padding multipath channels.
b) Discuss about the coded waveform for padding channels.
8. Write short notes on any two of the following :
 - a) Link budget analysis
 - b) Modulation codes for spectrum spacing
 - d) OFDM

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