

# Government College of Engineering, Aurangabad

(An Autonomous Institute of Government of Maharashtra)

M. E. (Electronics) Examination (2016-2017)

ET 504 Digital Communication Systems

Time: Three Hours

Max Marks 60

5 DEC 2016

Note :

- Solve any four questions
- Assume suitable data if necessary

Q1	a	Explain PAM, PWM and PPM in detail with diagram.	6
	b	Describe with block diagram, Binary Phase Shift Keying (BPSK) transmitter and receiver.	9
Q2	a	Explain with block diagram Pulse Code Modulation (PCM) transmitter and receiver	8
	b	Describe Delta modulation (DM) and compare it with Adaptive Delta Modulation (ADM).	7
Q3	a	Explain with suitable example Linear Block Coding.	8
	b	Describe Cyclic Coding with suitable example.	7
Q4	a	Explain terms Probability, Information and Entropy.	6
	b	Explain with block diagram, receiver for Optimum Digital Signal Detection	9
Q5		Write Short notes( any three)	
	a	PN sequence generation	5
	b	Binary Frequency Shift Keying	5
	c	Fast Frequency Hopping Spread Spectrum	5
	d	CDMA ( Code Division Multiple Access)	5

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