

Government College of Engineering, Aurangabad
(An Autonomous Institute of Government of Maharashtra)

T. E. (E &TC) Examination (2016-2017)

ET 304 DIGITAL COMMUNICATION

Time: Three Hours

12.2.NOV 2016

Max Marks 60

Note:

- All questions are compulsory
- **Solve any two from each question**
- Assume suitable data wherever necessary

Q 1	a	Explain PCM transmission and reception in detail with block diagram.	6
	b	Describe PAM, PPM and PTM waveform generation in detail.	6
	c	Explain sampling and reconstruction of signal in detail	6
Q 2	a	Describe BFSK generation and reception with block diagram.	6
	b	Explain M-ary PSK generation in detail	6
	c	Describe Binary Phase Shift Keying in detail.	6
Q 3	a	Describe information, entropy. Explain properties of entropy.	6
	b	Explain Cyclic Coding process.	6
	c	Derive an expression for entropy for binary system.	6
Q 4	a	Explain Linear Block coding in detail.	6
	b	Explain cross spectral density.	6
	c	Explain Normal distribution in detail.	6
Q 5		Write short notes(any two)	
	a	Fast Frequency hopping spread spectrum	6
	b	PN sequence generation	6
	c	Delta Modulation	6
