SE | CMPN | IV (R.) 12/12/12
ADC

49 : 2nd half-12-(I) JP

Con. 10502-12. **KR–7364**

(3 Hours) **[Total Marks : 100**

N.B.: (1) Q.1 is Compulsory.
(2) Attempt any 4 questions of remaining 6 questions.
(3) Figures to the right indicate full marks for the questions.
(4) Assume suitable data if required.

Q.1. (a) Distinguish between AM & FM. 5
(b) Explain Shannon's Theorem. 5
(c) Distinguish between Analog & Digital Modulation. 5
(d) Explain Cyclic codes. 5

Q.2. (a) Explain phase modulation & demodulation. 10
(b) Explain frequency modulators & demodulators. 10

Q.3. (a) Explain sampling theorem for low pass & band pass filters. Also explain sampling technique principles. 10
(b) Explain generation & detection of PAM. 10

Q.4. (a) Explain TDM & FDM. 10
(b) Explain PCM in detail. 10

Q.5. (a) What is delta modulation & also explain adaptive delta modulation. 10
(b) Explain ISI & flow it reduce. 10

Q.6. (a) What is effect of Gaussian Noise on digital communication. 10
(b) Explain QPSK Transmitter & Receiver System. 10

Q.7. **Write Short Notes On :** 20
(a) Thermal Noise.
(b) QAM
(c) Noise Triangle.
(d) PCM waveform types.
