

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- IVth SEMESTER-EXAMINATION – MAY/JUNE- 2012****Subject code: 141102****Date: 31/05/2012****Subject Name: Communication Engineering****Time: 10:30 am – 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Draw block diagram of communication system and explain it **07**
(b) Explain the need for modulation of signals describe in detail Amplitude Modulation. **07**

- Q.2** (a) Define : [1] Shot Noise [2] Modulation index [3] Snail's Law [4] Noise Figure [5] IF [6] Pick Detector [7] SNR **07**
(b) Describe the need of pre-emphasis and de-emphasis in detail used in FM **07**

OR

- (b) Explain in detail the color TV transmission **07**

- Q.3** (a) Describe various TV standards **07**
(b) Write short note on various Fiber Optic Cables **07**

OR

- Q.3** (a) Describe the method of SSB-SC (single sideband with suppressed carrier) **07**
(b) Explain Pulse Code Modulation with necessary figure **07**

- Q.4** (a) Explain the need and usage of Data Communication System **07**
(b) Give comparison of long and short haul broadband system **07**

OR

- Q.4** (a) Explain multiplexing in broadband system **07**
(b) Draw necessary diagram and explain TV receiver. **07**

- Q.5** (a) Describe the elements of long distance telephony **07**
(b) Justify the importance of Noise Temperature in communication system with suitable example **07**

OR

- Q.5** (a) Draw block diagram of superhetrodyne receiver and explain them **07**
(b) Enumerate various types external and internal noise and explain any three **07**
