Hemchandracharya North Gujarat University, Patan

B.E. SEMESTER – IV (CE)

CE404: COMMUNICATION ENGINEERING

Teaching Scheme	**Examination Scheme**
Theory 4 hrs/week	Theory 100 Marks
Tutorial -	Practical 25 Marks
Practical 02 hrs/week	Term Work 25 Marks
Total 06 hrs/week	Total 150 Marks

1. Introduction to Communication Systems
2. Noise: External noise, internal noise, noise calculations, noise figure, noise temperature
3. Amplitude modulation: AM Theory, generation of AM
4. SSB techniques: Suppression of carrier, suppression of unwanted sideband
5. Frequency modulation: FM Theory, noise and FM, generation of FM
6. Radio receivers: types, AM receivers, Communication receivers, FM receivers, SSB receivers
7. Pulse and digital communications: Information theory, PCM, Telegraphy, Telemetry, fundamentals of data communications systems, data sets and interconnection requirements
8. Broadband communication systems: multiplexing, short and medium haul systems, long haul systems, elements of long distance telephony
9. Television fundamentals: introduction, standards, color transmission and reception
10. Introduction to Fiber optic technology: history, introduction to light, optical fiber cables, components and systems

Reference Books:

Communication Systems by Kennedy and Davis –Tata McGraw Hill Edition