COMMUNICATION SYSTEMS

Test Paper-I

MAX MARKS: 30 **TIME: 90Mts**

Sl. No.	QUESTION	ANSWER PAGE	MARKS
1	What are the essential elements of a communication system? Also draw a neat block diagram of a communication system.	Page:515	2
2	Give the functions of the following (a) Transmitter (b) Transducer	Page:515	2
3	What are the basic modes of communication? Give an example for each.	Page:515	3
4	Match the following Group -A / Group-B 1. Transducer — a. Loss of strength of a signal as it propagates through a medium 2. Signal — b. An unwanted signal that disturb the transmission 3. Noise — c. Which processes the incoming message signal 4. Transmitter — d. Information converted in electrical form and suitable for transmission 5. Attenuation — e. That extracts the desired message signal from the received signals 6. Receiver — f. Device that converts one form of energy into another	Page:516	3
5	What is meant by amplification? Why amplification is necessary in communication systems ?	Page:516	2
6	Define the following terms. (a)Range (b) Repeater	Page:517	2
7	What is modulation? What are the different types of modulation?	Page:517	2
8	Select the required bandwidth for transmitting speech, music, and TV signals from the following frequencies. (a) 20kHz (b) 6MHz (c)2.8kHz	Page:518	3

9	Draw diagram showing a fundamental sine wave and its harmonics. **Page:518**	2
10	Find the bandwidth of transmission medium required from the following for coaxial cable, and optical communication using fibres , satellite communication Uplink Downlink for BW 750 MHz and excess of 100GHz.5.9-6.4 GHz, 3.7-4.2GHZ **Page:519**	2
11	What are the different modes of propagation of electromagnetic waves? What is ground wave propagation? What are the limitations of ground wave propagation? **Page:519**	3
12	Waves of which frequency range propagate through sky wave. Briefly explain what is sky wave propagation? Name the phenomenon by which the wave gets reflected towards the earth. **Page:520**	3
13	Give the range of frequencies for which the ionosphere acts as a reflector. **Page:520**	1