CHAPTER = 14 COMMUNICATION
MULTIPLE CHOICE QUESTIONS (BOOK XI)

1. In Radio and Television broadcasts, the information signal is in the form of:
a) analog signal b) digital signal
c) Both analog & digital signals d) neither analog nor digital signal

2. A communication channel consists of:
a) transmission line only b) optical fiber only
c) free space only **d) All of them**

3. Voltage signal generated by a microphone is:
a) digital in nature b) analog in nature
c) hybrid in nature d) consists of bits & bytes

4. As compared to sound waves frequency of radio waves is:
a) higher b) equal
c) lower d) may be higher or lower

5. The process of superimposing signal frequency on the carrier wave is known as:
a) transmission b)detection
c) reception **d) modulation**

6. What is the frequency range of signals that can be transmitted in case of twisted pair of wires?
a) l0 MHz to 15 MHz. b) 5 MHz to 10 MHz.
c) l00 Hz to 5 MHz. d) l0 Hz to l00 Hz.

7. The maintenance of a satellite's orbital position is called:
a) maintenance keeping **b) station keeping**
c) station maintenance d) attitude control

8. Process of mapping the sampled analog voltage values to discrete voltage levels is called:
a) sampling b) sampling frequency
c) quantizing d) encoding

9. AM is used for broadcasting because:
a) it requires less transmitting power compared with other systems
b) it is more noise immune than other modulation system
c)No other modulation can provide the necessary bandwidth faithful transmission
d) its use avoids receiver complexity

10. Data in the compact disc is stored in the form of:
a) analog signal **b) digital signal**
c) noise d) both (a) &(b)

CHAPTER = 14 COMMUNICATION
EXAMS PRACTICE MULTIPLE CHOICE QUESTIONS

1 How many elements are essential for any communication system?
a) 3 b) 2
c) 4 d) 7

2 Which of the following is the purpose of the transmitter?
a) Converts signals to electric form
b) Operating the received signal
c) Converting the signal into a suitable form
d) Reduces noise from signals

3 Which among the following can be an input to a transmitter?
a) Voice signal **b) Electric signal**
c) Light signal d) Wave signal

4 Which of the following is the reason for signal distortion?
a) Speed of the signal
b) Wearing down of the essential elements
c) Absence of a channel
d) Channel imperfection

5 What is the frequency range for a speech signal?
a) 20 Hz to 20 kHz b) 20 kHz to 20 MHz
c) 300 Hz to 3100 Hz d) 30 Hz to 310 Hz

6 Which of the following is not a medium of transmission?
a) Microwave system b) Wire
c) Free space d) Fiber optic cable

7 It is found that ship-to-ship communication suffers from fading. This can be avoided by using
a) Space diversity **b) Frequency diversity**
c) Broadband antenna d) Directional antenna

8 The frequency range of 300 kHz to 3000 kHz is known as
a) Low-frequency **b) Medium frequency**
c) High-frequency d) Very high frequency

9 A telephone channel requires a bandwidth of about
a) 1 kHz **b) 3 kHz**
c) 10 kHz d) 50 kHz

10 In a practical commercial FM system, the channel bandwidth is
a) 150 kHz b) 100 kHz
c) 88 MHz d) 108 MHz

11 Ground waves can be used for communication up to
a) 5 kHz b) 12 kHz
b) 16 kHz d) 25 kHz

12 Why does a FM radio station perform better than and AM station radiating the same actual power?
a) FM is immune to noise
b) AM has only two sidebands while FM has more
c) FM uses larger bandwidth for large modulation depth.
d) Capture effects appears in FM.

13 In frequency modulation,
a) there is a large decrease in noise and hence increase in the signal to noise ratio
b) there is a large increase in noise and hence decrease in the signal to noise ratio
c) there is a large increase in noise and hence increase in the signal to noise ratio
d) there is a large decrease in noise and hence decrease in the signal to noise ratio

14 Identify the range of optical communication from the following.
a) Visible to ultraviolet
b) Microwaves to ultraviolet
c) Microwaves to x rays
d) X rays to gamma rays

15 What is the refractive index of the ionosphere?
a) Zero
b) More than one
c) Less than one
d) One

16 Identify a suitable frequency for skywave propagation.
a) Up to 2 MHz
b) From 2 MHz to 30 MHz
c) From 2 MHz to 50 MHz
d) From 2 MHz to 80 MHz

17 Identify the limitation of amplitude modification.
a) The quality of the audio signal is high
b) Amplitude modulation suffers from noise
c) The efficiency of AM transmission is high
d) It does not require a wider channel

18 An oscillator is producing FM waves of frequency 5 kHz with a variation of 15 kHz. What is the modulation index?
a) 1.00
b) 3.00
c) 0.5
d) 5.00

19 What happens in frequency modulation?
a) The amplitude of the modulated wave varies as the frequency of the carrier wave
b) The frequency of the modulated wave varies as the amplitude of the modulating wave
c) The amplitude of the modulated wave varies as the amplitude of the carrier wave
d) The frequency of the modulated wave varies as the frequency of a modulating wave

20 Why is AM used for broadcasting in the communication systems?
a) Its use avoids receiver complexity
b) It is more immune to other modulation systems
c) It requires less transmitting power
d) No noise disturbances