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4th Sem./Branch : ECE/ECE
(For Speech and Hearing Impaired)
Subject : Communication Systems

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 In AM transmitters, the modulating signal modulates the carrier with respect to its (CO1)

a) Amplitude b) Frequency
c) Phase d) None of these

Q.2 In Communication Systems, S/N ratio stands for(CO2)

a) System to noise ratio b) Signal to noise ratio
c) Both a&b d) None of these

Q.3 Frequency range of UHF (CO3)

a) 300-3000 KHz b) 3-30 MHz
c) 30-300 MHz d) 300-3000 MHz

Q.4 Electromagnetic waves travel at the speed of(CO4)

a) $3x10^8$ m/s b) $3x10^8$ m/h
c) $3x10^8$ Km/s d) $3x10^8$ Km/h

Q.5 VSAT stands for (CO5)

a) Very small area transponder
b) Very small area terminal
c) Very small aperture terminal
d) Very small aperture transponder

Q.6 Satellite communication used in (CO5)

a) Television b) Internet
c) Radio d) All of these

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Unit of frequency is_____ (CO1)

Q.8 The sensitivity of radio receiver is its ability to amplify weak signals. (True/ False) (CO2)

Q.9 Very low frequency (VLF) is used for TV broadcasting. (True/False) (CO3)

Q.10 Sky wave propagation is suitable for short distances. (True/False) (CO4)

Q.11 The space wave propagation is also known as line of sight propagation. (True/False) (CO4)

Q.12 Apogee is farthest point from earth reached by the satellite orbiting it. (True/False) (CO5)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Write comparison between Low level modulation and high level modulation. (CO1)

Q.14 Draw block diagram of AM transmitter. (CO1)

Q.15 Explain the concept of simple AGC. (CO2)

Q.16 Define a) Selectivity b) Image rejection ratio (CO2)

Q.17 Explain the concept of polarization of EM waves. (CO3)

Q.18 Explain Dish antenna. (CO3)

Q.19 Write effect of Earth's Curvature on Space wave propagation. (CO4)

Q.20 Explain Virtual height. (CO4)

Q.21 What are Geo-stationary satellite and its need? (CO5)

Q.22 Write any four applications of VSAT. (CO5)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Draw and explain block diagram of Armstrong FM transmitter. (CO1)

Q.24 Explain the principle of Super heterodyne receiver with the help of suitable diagram. (CO2)

Q.25 Explain in detail, Sky wave propagation. (CO4)