Q.24 What is AGC? Describe the concept of simple and delay AGC. (CO2)

Q25 Differentiate between AM and FM broadcast receivers. (CO2)

Q.26 Describe the characteristics and applications of half wave dipole antenna. (CO3)

Q.27 What are the basic functions of Antenna? (CO3)

Q.28 Define radiation intensity, effective aperture and beam width. (CO3)

Q.29 Write a short note on duct propagation. (CO4)

Q.30 Discuss the term skip distance and maximum usable frequency. (CO4)

Q.31 Discuss multiple hop sky-wave propagation. (CO4)

Q.32 Write any 5 applications of satellite system. (CO5)

Q.33 What are active and passive satellite. (CO5)

Q.34 Define the term orbit, apogee and perigee. (CO5)

Q.35 Write a short note on VSAT. (CO5)

Section-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)

Q.36 Explain the principle and working of block diagram of Super hetrodyne AM receiver in detail. (CO2)

Q.37 Explain the structure, characteristics and applications of dish antenna. (CO3)

Q.38 Explain the different modes of radio wave propagation. Discuss their characteristics. (CO4)

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4th Sem. Branch: Eltx./Power Eltx.
Sub : Communication systems/Comm. Engg.

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple choice Questions. All Questions are compulsory. (10x1=10)

Q.1 Communication system mainly consist of : (CO1)

a) Transmitter b) Channel

c) Receiver d) All of the above

Q.2 In amplitude modulation, the _____ of carrier is varied according to the strength of the signal. (CO1)

a) Amplitude b) Frequency

c) Time d) Phase

Q.3 The super hetrodyne principle provides selectivity at _____ stage. (CO2)

a) RF b) IF

c) Audio d) None

Q.4 The standard IF value for AM received is. (CO2)

a) 455 kHz b) 485 kHz

c) 10.7 kHz d) 490 kHz

Q.5 The director in a Yagi-Uda antenna is (CO3)

a) Longer than the driven element
b) Shorter than the driven element
c) Both
d) Does not exist

Q.6 MF is used for (CO3)

a) Telegraphy
b) Radio & television links
c) Satellite communication
d) Broadcasting, navigation

Q.7 Frequencies in the UHF range propagate by the means of (CO3)

a) Space wave b) Surface wave
c) Sky wave d) Ground wave

Q.8 Satellite earth station has (CO5)

a) Only receiving equipments
b) Only transmitting equipments
c) Both A and B
d) None

Q.9 Satellite operates in the frequency range of (CO5)

a) KHz b) GHz
c) MHz d) None

Q.10 Apogee is the point in the elliptical orbit. (CO5)

a) Nearest to earth
b) Farthest to earth
c) In the middle of the orbit
d) None

Section-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 The speed of light is equal to _____. (CO2)

Q.12 AGC stands for _____. (CO2)

Q.13 Reactance modulator method is _____ method of FM generation. (CO1)

Q. 14 The process of detection is also called as _____. (CO2)

Q.15 A radio receiver receives the radio waves from different broadcasting stations. (True/False) (CO2)

Q.16 Expand VSAT. (CO5)

Q.17 Sky waves propagate in the frequency range of _____. (CO4)

Q.18 The geostationary orbit lies in the equitorial plane of the earth. (True/False) (CO5)

Q.19 Write any 2 application of Yagi-Uda antenna. (CO3)

Q.20 Directivity of an antenna is the ratio of _____to _____. (CO3)

Section-C

Note: Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)

Q.21 Explain classification of transmitter based on modulation. (CO1)

Q.22 Explain the working of reactance modulator FM transmitter. (CO1)

Q.23 Define the term selectivity and image rejection ratio. (CO2)