

No. of Printed Pages : 4
Roll No.

221031

3rd Sem / ECE/ ECE (For Speech & Hearing Impaired)

Subject:- Analog and Digital Communication

Time : 3Hrs.

M.M. : 60

SECTION-A

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

Q.1 The process by mean of which information is extracted from modulated signal is called _____ (CO1)

- a) Modulation
- b) Amplification
- c) Demodulation
- d) None of the above

Q.2 Which of the following is a type of modulation? (CO2)

- a) Frequency translation
- b) Amplitude modulation
- c) Demodulation
- d) All of the above

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Q.3 Compare the power efficiency of DSB-SC and SSB-SC modulation. (CO2)

- a) DSB-SC is more power efficient than SSB-SC
- b) SSB-SC is more power efficient than DSB-SC
- c) Both modulations have the same power efficient
- d) The power efficiency depend on the application

Q.4 In wideband FM, the modulation index is (CO3)

- a) Less than unity
- b) Equal to unity
- c) Greater than unity
- d) Zero

Q.5 Which type of demodulator is used in the frequency hopping technique? (CO4)

- a) Coherent
- b) Coherent and non-coherent
- c) Non-coherent
- d) None of the above

Q.6 Which one of the following is also called as ON-OFF keying? (CO5)

- a) ASK
- b) PSK
- c) FSK
- d) QPSK

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SECTION-B

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

Q.7 UHF range extends from _____ to _____ (CO1)

Q.8 Modulation is the process of changing _____, _____ or _____ of carrier signal according to modulating signal. (CO1)

Q.9 Total power of AM wave in terms of carrier power is _____. (CO2)

Q.10 In narrow band FM, modulation index is _____. (CO3)

Q.11 Give full form of PCM _____. (CO4)

Q.12 The process of rounding off the value of sampled signal is termed as _____. (CO4)

SECTION-C

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

Q.13 Draw and explain the block diagram of a modern communication system. (CO1)

Q.14 Explain working principle of PWM. (CO4)

Q.15 Compare analog and digital communication systems. (CO4)

Q.16 Explain VSB with its block diagram. (CO2)

Q.17 What is De-emphasis? What is its use? (CO2)

Q.18 Explain noise triangle. (CO3)

Q.19 With the help of block diagram explain ASK. (CO5)

Q.20 Explain briefly ADAPTIVE DELTA modulation.

Q.21 Explain the Carson's rule for FM. (CO2)

Q.22 Explain the need for demodulation in communication systems. (CO1)

SECTION-D

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

Q.23 Derive the expression for FM wave and its frequency spectrum. Also draw the waveforms. (CO2)

Q.24 Explain basic block diagram of FSK and its working principle. (CO5)

Q.25 Draw and explain the block diagram of PCM system. (CO4)

(Note : Course outcome/CO is for office use only)