

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 then SSB-SC
- b) SSB-SC is more power efficient then 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)

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- 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)

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