

No. of Printed Pages : 4
Roll No.

221031

3rd Sem / Branch : ECE
Sub.: Analog & 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 the modulated signal is called (CO1)

- a) Modulation b) De-Modulation
- c) Amplitude d) None of them

Q.2 The process of transmitting two or more information signals simultaneously over the same channel is called? (CO1)

- a) Multiplexing b) Modulation
- c) Detection d) Telemetry

Q.3 Modulation index in term of V_{\max} and V_{\min} . (CO2)

- a) $\frac{V_{\max} + V_{\min}}{V_{\max} - V_{\min}}$
- b) $\frac{V_{\max} - V_{\min}}{V_{\max} + V_{\min}}$
- c) $\frac{V_{\min} - V_{\max}}{V_{\min} - V_{\max}}$
- d) $\frac{V_{\max} - V_{\min}}{V_{\max} + V_{\min}}$

Q.4 In FM, If amplitude of the carrier wave is doubled, then what is the effect on the FM signal? (CO3)

- a) Double b) Four Times
- c) Half d) No Effect

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Q.5 A balanced modulator produces _____. (CO2)

- a) AM b) DSB
- c) SSB d) VSB

Q.6 The main advantage of PCM system is (CO5)

- a) Lower noise b) Lower power
- c) Lower Bandwidth d) Lower frequency

SECTION-B

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

Q.7 Modulation is used to reduce bandwidth? (T/F) (CO1)

Q.8 SSB-SC stands for ____? (CO2)

Q.9 In FM modulation index is proportional to ____? (CO3)

Q.10 What is the full form of TDM? (CO4)

Q.11 Define sampling theorem? (CO4)

Q.12 What do you mean by PSK? (CO5)

SECTION-C

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

Q.13 Explain the block diagram of communication system (CO1)

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Q.14 Give the classification of radio frequency spectrum. (CO1)

Q.15 Explain VSB with block diagram. (CO2)

Q.16 Explain frequency modulation in brief. (CO3)

Q.17 Discuss various method of sampling. (CO4)

Q.18 Describe the principle of Pulse Amplitude Modulation (PAM) (CO4)

Q.19 Explain ASK with the help of block diagram. (CO5)

Q.20 What is pre-emphasis and de-emphasis? (CO4)

Q.21 Write a short note on the following- (CO3)

a) Modulation Index b) Frequency Deviation

Q.22 Distinguish between TDM and FDM. (Co4)

SECTION-D

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

Q.23 Write Comparison between FM and AM? (CO3)

Q.24 Explain ASK, FSK and PSK which one is best among them? (CO5)

Q.25 Describe the principle of Pulse Code Modulation PCM. (CO4)