

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 propotional to _____? (CO3)
- Q.10 What is the full form of TDM? (CO4)
- Q.11 Define sampling theorm? (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)