

1. Which modulation technique utilizes both upper and lower sidebands along with a carrier signal?

- a) Amplitude Modulation (AM)
- b) Frequency Modulation (FM)
- c) Phase Modulation (PM)
- d) Pulse Code Modulation (PCM)

Answer: a) Amplitude Modulation (AM)

Explanation: Amplitude Modulation (AM) involves varying the strength (amplitude) of a carrier signal in proportion to the waveform being sent. This modulation technique produces both upper and lower sidebands around the carrier frequency.

2. What does DSB-C stand for in the context of modulation?

- a) Double Side Band with Carrier
- b) Double Side Band without Carrier
- c) Digital Signal Broadcasting with Carrier
- d) Direct Single Band Carrier

Answer: a) Double Side Band with Carrier

Explanation: DSB-C refers to Double Side Band with Carrier modulation, where both sidebands are transmitted along with the carrier signal.

3. Which modulation technique only transmits the sidebands without the carrier signal?

- a) DSB-C
- b) DSB-SC

- c) SSB-SC
- d) VSB-SC

Answer: b) DSB-SC

Explanation: DSB-SC (Double Side Band Suppressed Carrier) modulation only transmits the sidebands while suppressing the carrier signal.

4. Which modulation technique offers improved bandwidth efficiency by transmitting only one sideband along with the carrier?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC
- d) VSB-SC

Answer: c) SSB-SC

Explanation: Single Side Band Suppressed Carrier (SSB-SC) modulation transmits only one sideband along with the carrier, thereby offering improved bandwidth efficiency compared to DSB-SC.

5. What is the main advantage of SSB-SC modulation over DSB-SC modulation?

- a) Reduced bandwidth requirement
- b) Higher signal-to-noise ratio
- c) Simplified demodulation process
- d) Increased transmission range

Answer: a) Reduced bandwidth requirement

Explanation: SSB-SC modulation requires less bandwidth compared to DSB-SC modulation because it transmits only one sideband along with the carrier.

6. Which modulation technique is commonly used in television broadcasting to conserve bandwidth?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC
- d) VSB-SC

Answer: d) VSB-SC

Explanation: Vestigial Side Band Suppressed Carrier (VSB-SC) modulation is commonly used in television broadcasting to conserve bandwidth while maintaining signal integrity.

7. What is the purpose of generating Vestigial Side Band (VSB) in communication systems?

- a) To reduce signal distortion
- b) To increase transmission speed
- c) To conserve bandwidth
- d) To enhance encryption

Answer: c) To conserve bandwidth

Explanation: Vestigial Side Band (VSB) modulation is used to conserve bandwidth in communication systems by transmitting only a portion of one sideband along with the carrier.

8. Which modulation technique involves transmitting both sidebands but only a portion of the carrier signal?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC
- d) VSB-SC

Answer: d) VSB-SC

Explanation: Vestigial Side Band Suppressed Carrier (VSB-SC) modulation involves transmitting both sidebands along with a portion of the carrier signal, which is why it is termed “vestigial.”

9. In which modulation technique is the carrier signal completely eliminated during transmission?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC
- d) VSB-SC

Answer: b) DSB-SC

Explanation: Double Side Band Suppressed Carrier (DSB-SC) modulation completely eliminates the carrier signal during transmission.

10. Which modulation technique is preferred for long-distance radio communication due to its efficient use of power?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC

d) VSB-SC

Answer: c) SSB-SC

Explanation: Single Side Band Suppressed Carrier (SSB-SC) modulation is preferred for long-distance radio communication due to its efficient use of power and bandwidth.

11. What is the primary disadvantage of DSB-SC modulation?

- a) High bandwidth requirement
- b) Poor signal-to-noise ratio
- c) Complex demodulation process
- d) Reduced transmission range

Answer: a) High bandwidth requirement

Explanation: DSB-SC modulation requires a high bandwidth due to the transmission of both sidebands without the carrier signal.

12. Which modulation technique is most susceptible to frequency selective fading in wireless communication?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC
- d) VSB-SC

Answer: a) DSB-C

Explanation: Double Side Band with Carrier (DSB-C) modulation is more susceptible to frequency selective fading because it relies on the transmission of both sidebands along with

the carrier signal.

13. Which modulation technique offers improved efficiency in terms of power consumption compared to DSB-SC?

- a) DSB-C
- b) SSB-SC
- c) VSB-SC
- d) PCM

Answer: b) SSB-SC

Explanation: Single Side Band Suppressed Carrier (SSB-SC) modulation offers improved efficiency in terms of power consumption compared to DSB-SC modulation.

14. Which modulation technique is commonly used in voice transmission over long-distance radio communication?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC
- d) VSB-SC

Answer: c) SSB-SC

Explanation: Single Side Band Suppressed Carrier (SSB-SC) modulation is commonly used in voice transmission over long-distance radio communication due to its efficiency in power and bandwidth usage.

15. Which modulation technique requires complex demodulation processes at the receiver?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC
- d) VSB-SC

Answer: a) DSB-C

Explanation: Double Side Band with Carrier (DSB-C) modulation requires complex demodulation processes at the receiver to extract the original signal.

16. In SSB-SC modulation, what happens to the lower sideband during transmission?

- a) It is transmitted along with the carrier.
- b) It is transmitted with reduced power.
- c) It is completely suppressed.
- d) It is inverted before transmission.

Answer: c) It is completely suppressed.

Explanation: In Single Side Band Suppressed Carrier (SSB-SC) modulation, one sideband (either upper or lower) is completely suppressed during transmission to conserve bandwidth.

17. What is the primary purpose of modulation in communication systems?

- a) To increase the power of the signal
- b) To reduce the bandwidth requirement
- c) To improve the clarity of the signal
- d) To simplify the demodulation process

Answer: b) To reduce the bandwidth requirement

Explanation: The primary purpose of modulation in communication systems is to reduce the bandwidth requirement while preserving the integrity of the transmitted signal.

18. Which modulation technique is commonly used in AM radio broadcasting?

- a) DSB-C
- b) DSB-SC
- c) SSB-SC
- d) VSB-SC

Answer: a) DSB-C

Explanation: Double Side Band with Carrier (DSB-C) modulation is commonly used in AM (Amplitude Modulation) radio broadcasting.

19. What is the main advantage of VSB-SC modulation in television broadcasting?

- a) Improved signal quality
- b) Reduced interference
- c) Higher transmission speed
- d) Increased coverage area

Answer: b) Reduced interference

Explanation: Vestigial Side Band Suppressed Carrier (VSB-SC) modulation reduces interference in television broadcasting, resulting in improved signal quality.

20. Which modulation technique is used in digital communication systems to convert analog signals into digital format?



- a) DSB-C
- b) PCM
- c) SSB-SC
- d) VSB-SC

Answer: b) PCM

Explanation: Pulse Code Modulation (PCM) is used in digital communication systems to convert analog signals into digital format for transmission and processing.

Related posts:

1. Frequency domain representation of signal mcqs
2. FM Modulation & Transmission MCQs
3. Understanding AM and FM Transmission Noise and Receiver Characteristics
4. Web Development Essentials MCQs
5. HTML MCQs
6. Style sheets MCQs
7. XML MCQs
8. PHP and MySQL MCQs
9. Basics of programming MCQs
10. Decision control structure MCQs
11. Array MCQS
12. C Programming Essentials Structures, Preprocessor, and Unions MCQs
13. Basic concepts of OOP MCQS
14. Unix/Linux MCQs
15. The Shell Basic Commands, Shell Programming MCQs
16. File System MCQs
17. Process Control MCQS

18. System Security MCQs.
19. Dynamic Host Configuration Protocol MCQs
20. Introduction to Energy Science MCQs
21. Ecosystems mcqs
22. Biodiversity and its conservation MCQs
23. Environmental Pollution mcqs
24. Social Issues and the Environment mcqs
25. Signals and Systems MCQs
26. Linear Time- Invariant Systems mcqs
27. z-Transform mcqs
28. Fourier analysis of discrete time signals mcqs
29. State-Space Analysis, Sampling Theorem, and Signal Reconstruction mcqs
30. Control System MCQs: Basics, Feedback, and Analysis
31. Control System Analysis MCQs
32. Frequency Domain Analysis MCQs
33. System Design and Compensation Techniques MCQs
34. State Space & Control Systems MCQs
35. Feedback Amplifiers and Oscillators MCQs
36. Introduction to ICs and Op-Amps MCQs
37. Op-Amp Characteristics MCQs
38. OP-AMP applications MCQs
39. Electronic Circuits with 555 Timer MCQs
40. Voltage Regulator MCQs
41. Discrete-Time Signals and Systems MCqs
42. The z-Transformmcqs
43. Frequency Analysis of Discrete Time Signals mcqs
44. Efficient Computation of the DFT mcqs

45. Digital filters Design Techniques Mcqs
46. Radiation mcqs
47. Antenna Fundamentals mcqs
48. Types of antennas mcqs
49. Aperture and slot mcqs
50. Propagation of radio waves mcqs
51. Data Communication mcqs
52. OSI model mcqs
53. ERROR CONTROL AND DATA LINK PROTOCOLS mcqs
54. NETWORKS mcqs
55. NETWORKING DEVICES AND TCP / IP PROTOCOL SUITE mcqs
56. CMOS VLSI Circuit Design MCQs
57. Specification of sequential systems mcqs
58. Satellite Systems and Orbital Mechanics MCQs
59. Satellite Communication & Polarization MCQs
60. Satellite and Earth Segment MCQs
61. Satellite Communication MCQs
62. Satellite Services MCQs
63. 8051 Interfacing & Serial Communication MCQs
64. MCU Overview 8096 and PIC mcqs
65. Introduction to Embedded Systems mcqs
66. Embedded System Architecture mcqs
67. Input Output and Peripheral Devices mcqs
68. PHYSIOLOGY AND TRANSDUCERS mcqs
69. ELECTRO - PHYSIOLOGICAL MEASUREMENTS mcqs
70. NON-ELECTRICAL PARAMETER MEASUREMENTS mcqs
71. MEDICAL IMAGING MCQS

- 72. ASSISTING AND THERAPEUTIC EQUIPMENTS MCQS
- 73. Power Semiconductor Switches MCQS
- 74. Rectifiers and Thyristors MCQs
- 75. Inverters & Cycloconverters Inverters MCQs
- 76. AC Voltage Controllers MCQs
- 77. DC – DC Converters MCQS
- 78. Practical Consideration and Technology in VLSI Design MCQs
- 79. Device Modeling MCQs
- 80. Circuit Simulation MCQs
- 81. Structured Digital Circuits and Systems MCQs
- 82. CMOS Processing Technology MCQs
- 83. Microwave Engineering MCQs
- 84. Microwave Semiconductor Devices MCQs
- 85. RF Network Analysis & Measurement MCQs
- 86. Microwave Components and Circuits MCQs
- 87. RF & Microwave Circuit Design MCQs
- 88. Information Theory MCQs
- 89. Coding theorem MCQs
- 90. Information Channels MCQs
- 91. Error Control Coding MCQs
- 92. BCH and Convolutional Codes MCQs
- 93. Nanoscale Semiconductor Physics MCQs
- 94. Introduction to lithography MCQs
- 95. Tunnel Junctions and Tunneling Phenomena MCQs
- 96. Nanoelectronics MCQs
- 97. Scaling of physical systems MCQs
- 98. Cellular Mobile Systems MCQs

- 99. Wireless Communication Essentials MCQs
- 100. Cochannel interference reduction MCQs
- 101. Types of Noncochannel interference MCQS
- 102. Cellular Network Management MCQs
- 103. Digital Cellular Systems MCQs
- 104. IoT Essentials MCQs
- 105. IoT Technologies MCQs
- 106. Design Principles for Web Connectivity MCQs
- 107. IoT Technologies MCQS
- 108. IOT Design methodology MCQs
- 109. Probability and Random Variable MCQs
- 110. Probability Distributions and Expectations MCQs
- 111. Multiple Random Variables MCQS
- 112. Stochastic Processes MCQs
- 113. Optical Fiber Basics MCQs
- 114. Signal degradation in Optical Fibre MCQs
- 115. Optical sources and detectors MCQs
- 116. Optical Communication MCQs
- 117. Optical networks and amplifiers MCQS
- 118. 5G Wireless Communications MCQ
- 119. 5G Wireless Propagation Channels MCQS
- 120. 5G Transmission and Design Techniques MCQS
- 121. D2D and M2M Communications MCQS
- 122. Millimeter-Wave Communications MCQs
- 123. Review of Cellular Networks MCQS
- 124. LTE systems MCQS
- 125. Wireless Sensor Networks MCQS

126. Wireless routing Protocols MCQS
127. Internet of things (IoT) and GPS systems MCQS
128. Digital Image Processing MCQs
129. Transforms and Their Properties MCQs
130. Image Enhancement Techniques MCQs
131. Image Restoration MCQs
132. Compression & Image Watermarking MCQs
133. Speech Processing Fundamentals MCQs
134. Speech Distortion Analysis MCQs
135. HMMs in Speech Modeling MCQs
136. Large Vocabulary Continuous Speech Recognition MCQS
137. Text-to-Speech Synthesis MCQS
138. Theory of Measurement MCQs
139. Cathode Ray Tubes, Oscilloscopes, and Bridge Circuits MCQs
140. Transducer MCQs
141. Signal and Function Generators, Displays MCQS
142. Digital and Analog Conversion MCQs
143. Number Systems MCQS
144. Combinational logic circuits MCQS
145. Sequential Logic Design MCQs
146. Registers and Counters MCQS
147. Logic Families and Semiconductor Memories MCQS
148. Semiconductor MCQs
149. Diode Circuits & Power Supply MCQs
150. Fundamentals of BJT MCQS
151. Small Signal analysis MCQs
152. Electronic Devices MCQs

- 153. Introduction to circuit theory MCQS
- 154. Network Graph theory MCQs
- 155. Network Theorems MCQS
- 156. Electrical Circuit Analysis and Laplace Transform MCQs
- 157. Two port parameters MCQS
- 158. Evolution of Microprocessors: From 8086 to Pentium MCQs
- 159. 8086 Microprocessor MCQs
- 160. Interfacing Chips in Microprocessor Systems MCQS
- 161. Peripheral Devices in Computer Systems MCQS
- 162. 8051 Microcontrollers & Embedded Systems MCQs
- 163. Sampling, Modulation, and Multiplexing MCQs
- 164. Digital Communication Techniques MCQs
- 165. Digital Modulation Techniques MCQs
- 166. Modulation Techniques and Signal Processing MCQs
- 167. Information Theory and Communication MCqs
- 168. Two-Port Networks and Matching Techniques MCQs
- 169. Passive LC Filters MCQs
- 170. Transmission Line Fundamentals MCQs
- 171. RF Transmission Lines and Matching Techniques: MCQs
- 172. Big Data MCQs
- 173. Computer Networks MCQs
- 174. OPERATING SYSTEMS MCQ
- 175. Ecosystems MCQ
- 176. Graph Theory and Combinatorics MCQ
- 177. Combinational Logic MCQ
- 178. Polymorphism MCQ
- 179. Algorithmic Problem MCQ

- 180. Computer Arithmetic MCQ
- 181. Input / Output MCQ
- 182. Fuzzy Systems MCQ
- 183. RL Techniques MCQs
- 184. NoSQL MCQs Concepts, Variations, and MongoDB
- 185. OLAP Systems MCQ
- 186. Agile Software Design and Development MCQs
- 187. MAC Sub layer MCQ
- 188. Code Generation MCQs
- 189. Software Management Process MCQs
- 190. Sensors and Actuators MCQs
- 191. Block chain application development MCQs
- 192. Parallel Computing MCQs
- 193. CVIP Basics MCQs
- 194. IoT Essentials MCQs
- 195. Innovation in Business: MCQs
- 196. Data Base Design MCQs
- 197. HADOOP MAPREDUCE MCQs
- 198. Cybercrime MCQs
- 199. Surveying & Levelling MCQS
- 200. Architectural Principles MCQs