

1. Which domain is primarily utilized for restoring images through spatial filtering?

- a) Time domain
- b) Frequency domain
- c) Color domain
- d) Spatial domain

Answer: d) Spatial domain

Explanation: Spatial filtering involves modifying pixel values directly in the spatial domain, typically using convolution operations with a filter kernel.

---

2. What is a common method for reducing noise in images through frequency domain filtering?

- a) Median filtering
- b) Gaussian filtering
- c) Fourier filtering
- d) Laplacian filtering

Answer: c) Fourier filtering

Explanation: Fourier filtering involves transforming the image into the frequency domain using Fourier transforms, applying filtering operations, and then transforming it back to the spatial domain.

3. Which type of degradation assumes that the distortion applied to an image is consistent across the entire image?

- a) Non-linear degradation
- b) Spatially variant degradation
- c) Linear position invariant degradation
- d) Spatially invariant degradation

Answer: c) Linear position invariant degradation

Explanation: In linear position invariant degradation, the degradation function is the same across the entire image, and it is typically modeled as a convolution operation.

---

4. What is the primary purpose of Wiener filtering in image restoration?

- a) Sharpening edges
- b) Enhancing contrast
- c) Removing noise
- d) Smoothing the image

Answer: c) Removing noise

Explanation: Wiener filtering is a method used to reduce noise from images by minimizing the mean square error between the original image and the filtered image.

---

5. In image restoration, what is the role of inverse filtering?

- a) Removing spatial artifacts
- b) Eliminating noise
- c) Restoring the original image from the degraded image
- d) Enhancing image resolution

Answer: c) Restoring the original image from the degraded image

Explanation: Inverse filtering aims to recover the original image from the degraded version by applying the inverse of the degradation function.

---

6. Which technique is commonly used for reconstructing images from projections, such as in computed tomography (CT) scanning?

- a) Convolutional neural networks
- b) Principal component analysis
- c) Radon transform
- d) Hough transform

Answer: c) Radon transform

Explanation: The Radon transform is frequently employed in image reconstruction from projections, particularly in medical imaging techniques like CT scanning.

---

7. Which model assumes that noise in an image follows a Gaussian distribution?

- a) Poisson noise model
- b) Rayleigh noise model
- c) Gaussian noise model
- d) Uniform noise model

Answer: c) Gaussian noise model

Explanation: Gaussian noise model is commonly used to represent random noise in images, assuming a Gaussian distribution of noise values.

---

8. Which filtering technique is robust against the presence of both additive noise and blurring in an image?

- a) Median filtering
- b) Laplacian filtering

- c) Wiener filtering
- d) Gaussian filtering

Answer: c) Wiener filtering

Explanation: Wiener filtering is effective in restoring images corrupted by both additive noise and blurring, by minimizing the mean square error between the original and filtered images.

---

9. What is the purpose of estimating the degradation function in image restoration?

- a) To enhance image contrast
- b) To sharpen image edges
- c) To remove noise
- d) To accurately restore the original image

Answer: d) To accurately restore the original image

Explanation: Estimating the degradation function helps in accurately restoring the original image from its degraded version by understanding the nature of the distortion applied.

---

10. Which method is commonly used for reducing salt and pepper noise in images?

- a) Laplacian filtering
- b) Median filtering
- c) Gaussian filtering
- d) Butterworth filtering

Answer: b) Median filtering

Explanation: Median filtering is particularly effective in reducing salt and pepper noise, as it replaces each pixel's value with the median value in its neighborhood, which is less affected by extreme noise values.

Related posts:

1. Digital Image Processing MCQs
2. Transforms and Their Properties MCQs
3. Image Enhancement Techniques MCQs
4. Compression & Image Watermarking MCQs
5. Web Development Essentials MCQs
6. HTML MCQs
7. Style sheets MCQs
8. XML MCQs
9. PHP and MySQL MCQs
10. Basics of programming MCQs
11. Decision control structure MCQs
12. Array MCQs
13. C Programming Essentials Structures, Preprocessor, and Unions MCQs
14. Basic concepts of OOP MCQs
15. Unix/Linux MCQs

16. The Shell Basic Commands, Shell Programming MCQs
17. File System MCQs
18. Process Control MCQS
19. System Security MCQs.
20. Dynamic Host Configuration Protocol MCQs
21. Introduction to Energy Science MCQs
22. Ecosystems mcqs
23. Biodiversity and its conservation MCQs
24. Environmental Pollution mcqs
25. Social Issues and the Environment mcqs
26. Signals and Systems MCQs
27. Linear Time- Invariant Systems mcqs
28. z-Transform mcqs
29. Fourier analysis of discrete time signals mcqs
30. State-Space Analysis, Sampling Theorem, and Signal Reconstruction mcqs
31. Frequency domain representation of signal mcqs
32. Modulation Techniques mcqs
33. FM Modulation & Transmission MCQs
34. Understanding AM and FM Transmission Noise and Receiver Characteristics
35. Control System MCQs: Basics, Feedback, and Analysis
36. Control System Analysis MCQs
37. Frequency Domain Analysis MCQs
38. System Design and Compensation Techniques MCQs
39. State Space & Control Systems MCQs
40. Feedback Amplifiers and Oscillators MCQs
41. Introduction to ICs and Op-Amps MCQs
42. Op-Amp Characteristics MCQs

43. OP-AMP applications MCQs
44. Electronic Circuits with 555 Timer MCQs
45. Voltage Regulator MCQs
46. Discrete-Time Signals and Systems MCqs
47. The z-Transformmcqs
48. Frequency Analysis of Discrete Time Signals mcqs
49. Efficient Computation of the DFT mcqs
50. Digital filters Design Techniques Mcqs
51. Radiation mcqs
52. Antenna Fundamentals mcqs
53. Types of antennas mcqs
54. Aperture and slot mcqs
55. Propagation of radio waves mcqs
56. Data Communication mcqs
57. OSI model mcqs
58. ERROR CONTROL AND DATA LINK PROTOCOLS mcqs
59. NETWORKS mcqs
60. NETWORKING DEVICES AND TCP / IP PROTOCOL SUITE mcqs
61. CMOS VLSI Circuit Design MCQs
62. Specification of sequential systems mcqs
63. Satellite Systems and Orbital Mechanics MCQs
64. Satellite Communication & Polarization MCQs
65. Satellite and Earth Segment MCQs
66. Satellite Communication MCQs
67. Satellite Services MCQs
68. 8051 Interfacing & Serial Communication MCQs
69. MCU Overview 8096 and PIC mcqs



70. Introduction to Embedded Systems mcqs
71. Embedded System Architecture mcqs
72. Input Output and Peripheral Devices mcqs
73. PHYSIOLOGY AND TRANSDUCERS mcqs
74. ELECTRO - PHYSIOLOGICAL MEASUREMENTS mcqs
75. NON-ELECTRICAL PARAMETER MEASUREMENTS mcqs
76. MEDICAL IMAGING MCQS
77. ASSISTING AND THERAPEUTIC EQUIPMENTS MCQS
78. Power Semiconductor Switches MCQS
79. Rectifiers and Thyristors MCQs
80. Inverters & Cycloconverters Inverters MCQs
81. AC Voltage Controllers MCQs
82. DC - DC Converters MCQS
83. Practical Consideration and Technology in VLSI Design MCQs
84. Device Modeling MCQs
85. Circuit Simulation MCQs
86. Structured Digital Circuits and Systems MCQs
87. CMOS Processing Technology MCQs
88. Microwave Engineering MCQs
89. Microwave Semiconductor Devices MCQs
90. RF Network Analysis & Measurement MCQs
91. Microwave Components and Circuits MCQs
92. RF & Microwave Circuit Design MCQs
93. Information Theory MCQs
94. Coding theorem MCQs
95. Information Channels MCQs
96. Error Control Coding MCQs

97. BCH and Convolutional Codes MCQs
98. Nanoscale Semiconductor Physics MCQs
99. Introduction to lithography MCQs
100. Tunnel Junctions and Tunneling Phenomena MCQs
101. Nanoelectronics MCQs
102. Scaling of physical systems MCQs
103. Cellular Mobile Systems MCQs
104. Wireless Communication Essentials MCQs
105. Cochannel interference reduction MCQs
106. Types of Noncochannel interference MCQs
107. Cellular Network Management MCQs
108. Digital Cellular Systems MCQs
109. IoT Essentials MCQs
110. IoT Technologies MCQs
111. Design Principles for Web Connectivity MCQs
112. IoT Technologies MCQs
113. IOT Design methodology MCQs
114. Probability and Random Variable MCQs
115. Probability Distributions and Expectations MCQs
116. Multiple Random Variables MCQs
117. Stochastic Processes MCQs
118. Optical Fiber Basics MCQs
119. Signal degradation in Optical Fibre MCQs
120. Optical sources and detectors MCQs
121. Optical Communication MCQs
122. Optical networks and amplifiers MCQs
123. 5G Wireless Communications MCQ

124. 5G Wireless Propagation Channels MCQS
125. 5G Transmission and Design Techniques MCQS
126. D2D and M2M Communications MCQS
127. Millimeter-Wave Communications MCQS
128. Review of Cellular Networks MCQS
129. LTE systems MCQS
130. Wireless Sensor Networks MCQS
131. Wireless routing Protocols MCQS
132. Internet of things (IoT) and GPS systems 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. Timber ,Glass , Steel and Aluminium MCQS
173. Hydrographic Survey MCQs
174. Beam Deflection Methods MCQs
175. Highway Engineering MCQs
176. Specifications & Public Works Accounts MCQs
177. Harbour Planning MCQs

178. Development plans MCQS
179. Renewable Energy MCQs
180. Design features and construction of Foundations MCQs
181. V Arches and Suspension Cables MCQS
182. Mineralogy and crystallography MCQs
183. Air pollution chemistry MCQs
184. Lift & Escalator MCQS
185. Staircases MCQs
186. Hydrology MCQs
187. Advance Pavement Design MCQs
188. Low Cost Road Construction MCQs
189. Copyright MCQs
190. Public Participation in Environmental Decision making MCQs
191. Design of Flexural Members MCQs
192. Selection of foundation and Sub-soil exploration/investigation MCQs
193. Pier, Abutment and Wing Walls MCQs
194. Various types of production systems and search techniques MCQs
195. Materials for Repair and Retrofitting MCQs
196. Combustion in CI Engines MCQs
197. Mechatronics Overview and Applications MCQs
198. Friction MCQs
199. Work measuremen MCQs
200. Process improvement MCQs