1. Which of the following is NOT an example of a field that extensively uses Digital Image Processing (DIP)?
a) Medical Imaging
b) Weather Forecasting
c) Satellite Imaging
d) Security and Surveillance

Answer: b) Weather Forecasting
Explanation: While weather forecasting relies on data from various sources including satellites, it typically does not heavily involve digital image processing. Instead, it primarily relies on meteorological models and data analysis techniques.

2. What are the fundamental steps involved in Digital Image Processing (DIP)?
a) Acquisition, Preprocessing, Enhancement, Compression
b) Sampling, Quantization, Compression, Analysis
c) Segmentation, Feature Extraction, Recognition, Interpretation
d) Filtering, Transformation, Segmentation, Visualization

Answer: a) Acquisition, Preprocessing, Enhancement, Compression
Explanation: The fundamental steps in DIP typically involve acquiring the image, preprocessing it to remove noise or artifacts, enhancing it to improve visibility or extract features, and then compressing it for efficient storage or transmission.

3. Which component is NOT part of an image processing system?
a) Input Device
b) Processor
c) Output Device

d) Networking Device

Answer: d) Networking Device
Explanation: While networking may be involved in transmitting or receiving images in some systems, it is not a direct component of the image processing system itself, which primarily consists of input devices (such as cameras), processors, and output devices (such as monitors or printers).

4. What are the basic elements of visual perception relevant to Digital Image Processing?
a) Pixels, Histograms, Transformations
b) Brightness, Contrast, Color Perception
c) Sampling Rate, Resolution, Bit Depth
d) Fourier Transform, Convolution, Morphological Operations

Answer: b) Brightness, Contrast, Color Perception
Explanation: Visual perception elements like brightness, contrast, and color perception are crucial in understanding how humans perceive images and are thus fundamental to digital image processing tasks such as enhancement and manipulation.

5. In image sampling, what does the term “sampling rate” refer to?
a) Number of bits per pixel
b) Rate at which the image is acquired by the sensor
c) Number of pixels per unit area
d) Rate at which the continuous image is converted into a discrete signal

Answer: d) Rate at which the continuous image is converted into a discrete signal
Explanation: The sampling rate in image sampling refers to the frequency at which samples

(pixels) are taken from the continuous image to convert it into a discrete digital signal.

6. Which process involves assigning discrete values to continuous image data?
a) Sampling
b) Quantization
c) Compression
d) Enhancement

Answer: b) Quantization
Explanation: Quantization is the process of converting continuous image data into discrete values, typically represented as digital numbers, which is essential for digital image representation and processing.

7. What is the primary purpose of image compression in digital image processing?
a) To reduce the visual quality of the image
b) To increase the file size for better resolution
c) To reduce storage space and transmission bandwidth
d) To introduce noise for security purposes

Answer: c) To reduce storage space and transmission bandwidth
Explanation: Image compression aims to reduce the amount of data required to represent an image efficiently, enabling it to be stored or transmitted using less space or bandwidth while preserving essential visual information.

8. Which technique involves dividing an image into meaningful regions or objects?
a) Filtering
b) Segmentation

c) Transformation
d) Morphological Operations

Answer: b) Segmentation
Explanation: Segmentation is the process of partitioning an image into distinct regions or objects based on certain characteristics such as intensity, color, or texture, which is crucial for higher-level image analysis tasks.

9. What is the basic unit of a digital image?
a) Histogram
b) Vector
c) Pixel
d) Matrix

Answer: c) Pixel
Explanation: A pixel (short for picture element) is the smallest unit of a digital image, representing a single point in the image's grid and containing information about its color and intensity.

10. Which of the following is NOT a common image processing transform?
a) Fourier Transform
b) Laplace Transform
c) Wavelet Transform
d) Convolution Transform

Answer: d) Convolution Transform
Explanation: While convolution is a common operation in image processing used for tasks like

filtering, it is not considered a transform like the Fourier, Laplace, or Wavelet transforms, which involve converting images into different domains for analysis or manipulation.

Related Posts:

1. Transforms and Their Properties MCQs
2. Image Enhancement Techniques MCQs
3. Image Restoration 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. Laminar Flow MCQs
173. Construction equipments MCQs
174. Valuation MCQS
175. Urban Planning MCQs
176. Renewable Energy MCQs
177. Finance and Accounting MCQs
178. Indeterminate Structures-I MCQS
179. Tunnels MCQS
180. Advanced Waste-water treatment MCQS
181. Structural Engineering MCQs
182. Design of Slabs MCQS
183. Irrigation water requirement and Soil-Water-Crop relationship MCQS
184. Structural Joint MCQs
185. Cost effective construction techniques and equipments MCQs

186. Fluid Machines MCQs
187. Impact analysis MCQs
188. Basis of Structural Design and Connection Design MCQS
189. Hydrology MCQs
190. Design of R.C. Bridge MCQs
191. Seismic control of structures MCQs
192. Influence on Serviceability and Durability MCQs
193. Introduction of IC Engine MCQs
194. Systems With Two Degrees of Freedom MCQs
195. Governor Mechanisms MCQs
196. Emissions Norms & Measurement MCQs
197. SQC-Control charts MCQs
198. Refrigeration & Cooling MCQs
199. Suspension system MCQs
200. Machine Tools MCQs