1. Which of the following devices is responsible for generating accurate timekeeping signals within a computer system?

A) Timers
B) Keyboard controller
C) Analog to digital converters
D) Interrupt controllers

Answer: A) Timers

Explanation: Timers are specialized circuits within a computer system that generate accurate timing signals. They are commonly used for various purposes such as scheduling tasks, measuring time intervals, and generating clock signals for synchronous operations.

---

2. What component of a computer system is primarily responsible for monitoring and controlling the execution of programs, ensuring timely interrupts when necessary?

A) Watchdog timers
B) PWM
C) Real-time clock
D) Interrupt controllers

Answer: D) Interrupt controllers

Explanation: Interrupt controllers are hardware components responsible for managing

interrupt signals within a computer system. They ensure timely interruption of the CPU's normal execution flow to handle events such as I/O operations, timer expirations, and hardware errors.

---

3. Which peripheral device converts continuous analog signals into digital data for processing by a computer?

A) Keyboard controller
B) Analog to digital converter
C) PWM
D) Timers

Answer: B) Analog to digital converter

Explanation: Analog to digital converters (ADCs) are used to convert analog signals, such as those from sensors or audio devices, into digital data that can be processed by a computer. This conversion allows the computer to analyze and manipulate real-world data.

---

4. What hardware component is essential for regulating the duty cycle of digital signals, commonly used in applications such as controlling motor speed and LED brightness?

A) Real-time clock

B) PWM
C) Watchdog timers
D) Interrupt controllers

Answer: B) PWM

Explanation: Pulse Width Modulation (PWM) is a technique used to control the average voltage applied to a load by varying the duty cycle of a digital signal. It is commonly used in applications such as motor speed control, LED brightness adjustment, and power regulation.

---

5. Which device serves as a backup power source for maintaining accurate timekeeping even when the computer system is powered off?

A) Timers
B) Watchdog timers
C) Real-time clock
D) Analog to digital converters

Answer: C) Real-time clock

Explanation: A real-time clock (RTC) is a battery-powered clock/calendar circuit that maintains accurate timekeeping even when the computer system is powered off. It is commonly used in computers and other electronic devices to track time and date information.

---

6. What peripheral device is primarily responsible for converting digital signals into analog signals for output to external devices such as speakers or displays?

A) Timers
B) Analog to digital converters
C) PWM
D) Digital to analog converter

Answer: D) Digital to analog converter

Explanation: Digital to analog converters (DACs) are used to convert digital signals into analog signals. They are commonly used in audio systems, display devices, and other applications where analog output is required.

---

7. Which component of a computer system is designed to prevent system malfunctions by resetting the system in case of software or hardware failures?

A) Timers
B) Watchdog timers
C) Interrupt controllers
D) Real-time clock

Answer: B) Watchdog timers

Explanation: Watchdog timers are hardware components that monitor the operation of a system and initiate a reset if the system fails to respond within a predefined time frame. They are commonly used to prevent system malfunctions caused by software or hardware failures.

---

8. What device within a computer system is responsible for detecting and processing key presses from an input device such as a keyboard?

A) Analog to digital converters
B) Real-time clock
C) Keyboard controller
D) PWM

Answer: C) Keyboard controller

Explanation: The keyboard controller is a component within a computer system responsible for detecting and processing key presses from an input device such as a keyboard. It translates these key presses into signals that the computer’s operating system can understand.

---

9. Which peripheral device is commonly used for generating precise and stable timing signals for controlling the execution of tasks within a computer system?

A) Interrupt controllers
B) PWM
C) Timers
D) Analog to digital converters

Answer: C) Timers

Explanation: Timers are commonly used in computer systems to generate precise and stable timing signals for various purposes such as task scheduling, event timing, and synchronization. They play a crucial role in controlling the execution of tasks within the system.

---

10. What hardware component is essential for managing and prioritizing external events that require immediate attention from the CPU, such as I/O operations and timer expirations?

A) Real-time clock
B) Interrupt controllers
C) Watchdog timers
D) Analog to digital converters

Answer: B) Interrupt controllers

Explanation: Interrupt controllers are hardware components responsible for managing and prioritizing external events that require immediate attention from the CPU. They ensure that the CPU responds promptly to events such as I/O operations, timer expirations, and hardware interrupts.

Related posts:

1. 8051 Interfacing & Serial Communication MCQs
2. MCU Overview 8096 and PIC mcqs
3. Introduction to Embedded Systems mcqs
4. Embedded System Architecture 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. 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. Field work mcq
173. TREE MCQ
174. Introduction to Object Oriented Thinking & Object Oriented Programming MCQ
175. Concept of Probability MCQ
176. Software Analysis and Testing MCQ
177. Introduction to Operating Systems MCQ
178. Software architecture implementation technologies MCQ
179. Neural Network History and Architectures MCQ
180. Mobile transport layer MCQ
181. Cryptographic MCQs

182. Fundamentals of Agile Process MCQ
183. Reinforcement Learning and Sequential Models MCQs
184. Computer Graphics Multimedia PYQ
185. Multimedia MCQs
186. Telecommunications and Networks in Knowledge Management MCQs
187. Management of Rural Financing MCQs
188. INTRODUCTION Block Chain Technologies MCQs
189. Cloud Security MCQs
190. Introduction to RUP MCQs.
191. Knowledge Based Vision MCQs
192. IoT MCQs: Platforms, Security, and Case Studies
193. Push down Automata MCQs
194. DESCRIPTIVE STATISTICS MCQs
195. Pattern Recognition and Clustering MCQs
196. Timber ,Glass , Steel and Aluminium MCQS
197. Hydrographic Survey MCQs
198. Beam Deflection Methods MCQs
199. Highway Engineering MCQs
200. Specifications & Public Works Accounts MCQs