

Started on Wednesday, 17 July 2024, 8:55 AM

State Finished

Completed on Wednesday, 17 July 2024, 9:01 AM

Time taken 5 mins 58 secs

Grade 9.00 out of 10.00 (90%)

Question 1

Correct

Mark 1.00 out of 1.00

A 4-bit ALU can perform how many different arithmetic and logic operations?

- a. 8
- b. 16 ✓
- c. 32
- d. 64



Your answer is correct.

Question 2

Correct

Mark 1.00 out of 1.00

What is the purpose of a full-adder in binary addition?

- a. Adds two binary numbers and a carry-in ✓
- b. Subtracts two binary numbers
- c. Performs bitwise AND operation
- d. Performs bitwise OR operation

Your answer is correct.

Question 3

Correct

Mark 1.00 out of 1.00

What is the base value of the hexadecimal number system?

- a. 10
- b. 8
- c. 2
- d. 16 ✓

Question 4

Correct

Mark 1.00 out of 1.00

In binary addition, what is the carry when adding 1 + 1?

- a. 0
- b. 1 ✓
- c. 2
- d. 3

Question 5

Correct

Mark 1.00 out of 1.00

What is the binary representation of the decimal number 42?

- a. 11010
- b. 10110
- c. 101010 ✓
- d. 11000

Question 6

Correct

Mark 1.00 out of 1.00

Which gate is commonly used to implement binary addition in digital circuits?

- a. AND gate
- b. OR gate
- c. XOR gate ✓
- d. NOT gate

Question 7

Correct

Mark 1.00 out of 1.00

What is the binary representation of the decimal number 25?

- a. 11001 ✓
- b. 11010
- c. 11100
- d. 10100

Question 8

Correct

Mark 1.00 out of 1.00

What is the main function of an ALU?

- a. Perform arithmetic and logic operations ✓
- b. Store data temporarily
- c. Transfer data between memory and CPU
- d. Control the flow of data

Your answer is correct.

Question 9

Incorrect

Mark 0.00 out of 1.00

What is the result of adding 10101 and 11011 in binary?

- a. 101100
- b. 111100 ✗
- c. 110000
- d. 100000

Question 10

Correct

Mark 1.00 out of 1.00

In the binary number system, what is the base?

- a. 2 ✓
- b. 8
- c. 10
- d. 16

Your answer is correct.