Assignment for Week 1

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. 

Assignment for Week 1

1) Computer architecture refers to

- The operational units and their interconnections that realize the architectural specifications.
- Those attributes of a system visible to a programmer.
- Those attribute that have a direct impact on the logical execution of a program.
- Arrangement of system attributes with its associated file system.

No, the answer is incorrect.

Score: 0

Accepted Answers:
Those attributes of a system visible to a programmer.
Those attribute that have a direct impact on the logical execution of a program.

2) For a three input logic circuit shown below, the output Z can be expressed as:

1 point

P
Q
R
Z

Q+R'
3) The output of the combinational circuit given below is

\[ A + B + C \]
\[ A (B + C) \]
\[ B (C+A) \]
\[ C (A + B) \]

No, the answer is incorrect.
Score: 0

4) The Boolean expression \( AC+BC' \) is equivalent to

\[ A'C+BC'+AC \]
\[ B'C+AC+BC'+A'CB' \]
\[ AC+BC'+B'C+ABC \]
\[ ABC+A'BC'+ABC'+AB'C \]

No, the answer is incorrect.
Score: 0

5) Consider the following statements:

A multiplexer
1. Selects one of the several inputs and transmits it to a single output.
2. Routes the data from a single input to one of the many outputs.
3. Converts parallel data into serial data.
4. Is a combinational circuit.

Which of these statements are correct.

1, 2 and 4
2, 3 and 4
1, 3, and 4
1, 2 and 3

No, the answer is incorrect.
Score: 0

6) If \((73)_x\) (in base-x number system) is equal to \((54)_y\), the possible values of \(x\) and \(y\) are:

8, 16
10, 12
9, 13
7) The hexadecimal representation of \((657)_{8}\) is:  
- 1AF
- D78
- D71
- 32F

No, the answer is incorrect.
Score: 0
Accepted Answers:
- 1AF

8) Let \(X\) be the largest number of distinct 16 bit integers in 2's complement representation. Let \(Y\) be the number of distinct 16-bit integers in sign magnitude representation. Then \(X - Y = ?\)

- 1
- 0
- 2
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
- 1

9) Given the following binary number in 32-bit (single precision) IEEE-754 format:

\[
01000001000101000000000000000000
\]

What is the equivalent decimal value?

- +8.25
- -8.25
- +9.25
- -9.25

No, the answer is incorrect.
Score: 0
Accepted Answers:
- +9.25

10) What would the numbers -45 and 123 be represented in the 8-bit biased notation used in the exponents of single-precision numbers?

- 01010110, 11011101
- 01010010, 11111010
- 01110010, 01111010
- 01010010, 10111010

No, the answer is incorrect.
Score: 0
Accepted Answers: