Unit 1 - How to access the portal

Assignment for Week 0

The due date for submitting this assignment has passed. Due on 2018-01-20, 00:00 IST.

Submitted assignment

1) How many full adders and half adders are required to construct an m-bit parallel adder?  
   - m/2 full adders and m/2 half adders
   - m half adders
   - m-1 full adders and 1 half adder
   - m+1 half adders

   No, the answer is incorrect.
   Score: 0
   Accepted Answers: m-1 full adders and 1 half adder

2) How many types of flip-flops are generally used?  
   - 2
   - 3
   - 4
   - 5

   No, the answer is incorrect.
   Score: 0
   Accepted Answers: 4

3) How many inputs and outputs does a D flip-flop has (excluding the clock)?  
   - 2 inputs and 2 outputs
   - 1 input and 2 outputs
   - 1 input and 1 output
   - None of the above

   No, the answer is incorrect.
   Score: 0
   Accepted Answers: 1 input and 2 outputs

4) A clock with frequency X (MHz) is applied to a cascaded counter containing a modulus-4 counter, a modulus-8 counter, and a modulus-10 counter. The lowest output frequency possible is

   - X/4 MHz
   - X/8 MHz
5) Which of the following describes most appropriately a “shift register”

- The register that can shift information bits to another register
- The register that can shift information bits either to the right or to the left
- The register that can shift information bits to the right only
- The register that can shift information bits to the left only

No, the answer is incorrect.
Score: 0
Accepted Answers:
The register that can shift information bits either to the right or to the left

6) What is the chromatic number of the following graph?

No, the answer is incorrect.
Score: 0
Accepted Answers:
3

7) Consider the DAG with V = {1, 2, 3, 4, 5, 6} below. Which one the following is NOT a topological ordering?

- 1 2 3 4 5 6
- 1 3 2 4 5 6
- 3 2 4 1 6 5
- 1 2 3 4 5 6
- 1 3 2 4 6 5
- 3 2 4 1 6 5

No, the answer is incorrect.
Score: 0
Accepted Answers:
3
8) To achieve linear time complexity of Dijkstra's shortest path algorithm on undirected and unweighted graphs, the data structure to be used is

- Queue
- Stack
- Heap
- B-Tree

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

9) A Language for which a DFA can be constructed is a________

- Regular Language
- Context free Language
- Recursively enumerable language
- None of the above

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

10) In the formal definition of a deterministic finite state machine the number of tuples required is

- 4
- 5
- 6
- 7

No, the answer is incorrect.
Score: 0
Accepted Answers:
5

You were allowed to submit this assignment only once.