



Zayd

**Homework Assignment Submitted Successfully.**

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- [Assignments Due](#)
- [Progress Report](#)
- [Handouts](#)
- [Tutorials](#)
- [Homeworks](#)
- [Lab Projects](#)
- [Log Out](#)

**You obtained a score of 12.0 points, out of a possible 12.0 points.**  
**You have answered all the questions correctly.**

**Congratulations, you have achieved the maximum possible score.**

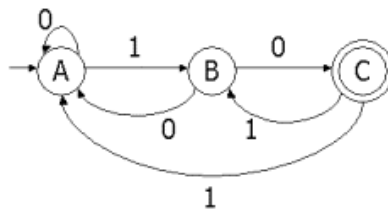
**Submission number:** 59864  
**Submission certificate:** FI845545  
**Submission time:** 2014-02-08 23:44:59 PST (GMT - 8:00)

**Help**

**Number of questions:** 4  
**Positive points per question:** 3.0  
**Negative points per question:** 1.0  
**Your score:** 12

Based on Section 2.3 of HMU.

1. The following nondeterministic finite automaton:



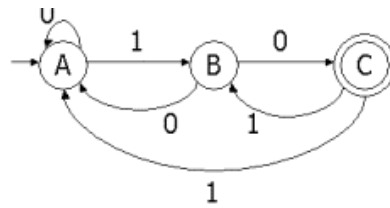
accepts which of the following strings?

- a) 010111
- b) 0110011
- c) 00010111
- d) 1011010

**Answer submitted: d)**

**You have answered the question correctly.**

2. Convert the following nondeterministic finite automaton:



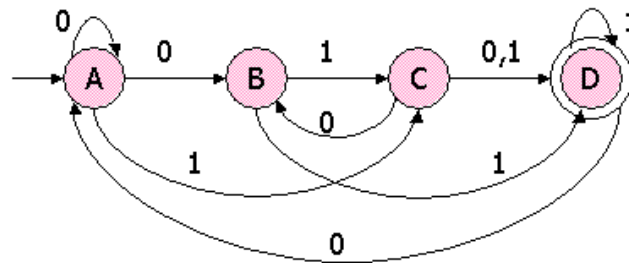
to a DFA, including the dead state, if necessary. Which of the following sets of NFA states is **not** a state of the DFA that is accessible from the start state of the DFA?

- a) {A}
- b) {B}
- c) {A,B}
- d) {C}

Answer submitted: **d)**

You have answered the question correctly.

3. Here is a nondeterministic finite automaton:



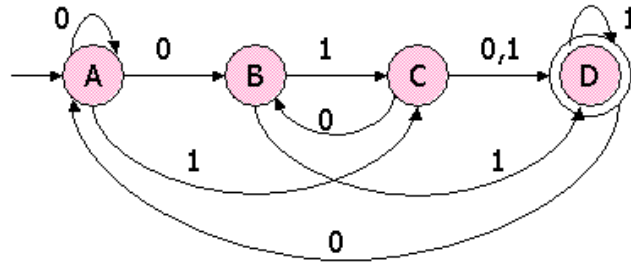
Some input strings lead to more than one state. Find, in the list below, a string that leads from the start state A to three different states (possibly including A).

- a) 01010
- b) 00100
- c) 0000
- d) 1000

Answer submitted: **a)**

You have answered the question correctly.

4. Here is a nondeterministic finite automaton:



Convert this NFA to a DFA, using the "lazy" version of the subset construction described in Section 2.3.5 (p. 60), so only the accessible states are constructed. Which of the following sets of NFA states becomes a state of the DFA constructed in this manner?

- a) {B,C,D}
- b) The empty set
- c) {A,B,D}
- d) {A,D}

Answer submitted: c)

You have answered the question correctly.