MCQ AT

Moore Machine

1. Moore Machine is an application of:  
a) Finite automata without input  
b) Finite automata with output  
c) Non Finite automata with output  
d) None of the mentioned  
View Answer

Answer: b  
Explanation: Finite automaton with output is categorized din two parts: Moore M/C and Mealy M/C.

2. In Moore machine, output is produced over the change of:  
a) transitions  
b) states  
c) all of the mentioned  
d) none of the mentioned  
View Answer

Answer: b  
Explanation: Moore machine produces an output over the change of transition states while mealy machine does it so for transitions itself.

3. For a give Moore Machine, Given Input=’101010’, thus the output would be of length:  
a) |Input|+1  
b) |Input|  
c) |Input-1|  
d) Cannot be predicted  
View Answer

Answer: a

What is the output for the given language?  
Language: A set of strings over ∑= {a, b} is taken as input and it prints 1 as an output “for every occurrence of a, b as its substring. (INPUT: abaaab)  
a) 0010001  
b) 0101010  
c) 0111010  
d) 0010000  
View Answer

Answer: a  
Explanation: The outputs are as per the input, produced.

8. The output alphabet can be represented as:  
a) δ  
b) ∆  
c) ∑  
d) None of the mentioned  
View Answer

Answer: b

1. In mealy machine, the O/P depends upon?  
a) State  
b) Previous State  
c) State and Input  
d) Only Input  
View Answer

Answer: c  
Explanation: Definition of Mealy Machine.

2. Which of the given are correct?  
a) Moore machine has 6-tuples  
b) Mealy machine has 6-tuples  
c) Both Mealy and Moore has 6-tuples  
d) None of the mentioned  
View Answer

Answer: c  
Explanation: Finite Automaton with Output has a common definition for both the categories.

.The ratio of number of input to the number of output in a mealy machine can be given as:  
a) 1  
b) n: n+1  
c) n+1: n  
d) none of the mentioned  
View Answer

Answer: a  
Explanation: The number of output here follows the transitions in place of states as in Moore machine.

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6. Mealy and Moore machine can be categorized as:  
a) Inducers  
b) Transducers  
c) Turing Machines  
d) Linearly Bounder Automata  
View Answer

Answer: b  
Explanation: They are collectively known as Transducers.

7. The major difference between Mealy and Moore machine is about:  
a) Output Variations  
b) Input Variations  
c) All of the mentioned  
d) None of the mentioned  
View Answer

Answer: a  
Explanation: Mealy and Moore machine vary over how the outputs depends on prior one (transitions) and on the latter one(states).

8. Statement 1: Mealy machine reacts faster to inputs.  
Statement 2: Moore machine has more circuit delays.  
Choose the correct option:  
a) Statement 1 is true and Statement 2 is true  
b) Statement 1 is true but Statement 2 is false  
c) Statement 1 is false and Statement 2 is true  
d) None of the mentioned is true  
View Answer

Answer: a  
Explanation: Being an input dependent and output capable FSM, Mealy machine reacts faster to inputs.