Date: [ ] Name: [ ]

Paper Code: A Roll No: [ ]

Muzaffarpur Institute of Technology **(MIT), Muzaffarpur**

(Under the Department of Science & Technology Govt. of Bihar, Patna)

Department of Information Technology

FLAT, Weekly Test – I

Duration: 30 Minutes **Semester: 5th** **Max. Marks: 10**

Q1.Finite automata requires minimum _____ number of stacks.

a) 1 b)0

c) 2 d) None of the mentioned

Q2.There are _____ tuples in finite state machine.

a) 4 b) 5

c) 6 d) unlimited

Q3.Language of finite automata is.

a) Type 0 b) Type 1

c) Type 2 d) Type 3

Q4.Which of the following is a not a part of 5-tuple finite automata?

a) Input alphabet b) Transition function

c) Initial State d) Output Alphabet

Q5.If A = {1, 2, 3, 4}, write down P(A) by listing its elements. What is the value of | P(A) |?

a) 8 b) 16 c)12 d) 9

Q6. Input Alphabet SIGMA is _____.

a)Non empty infinite set b)Non empty finite set

c)Both d)None of these

Q7.The non- Kleene Star operation accepts the following string of finite length over set A = {0,1}, where string s contains even number of 0 and 1

a) 01,0011,010101 b) 0011,11001100

c) ε,0011,11001100 d) ε,0011,11001100

Q8. Statement 1: A Finite automata can be represented graphically; Statement 2: The nodes can be its states; Statement 3: The edges or arcs can be used for transitions

Hint: Nodes and Edges are for trees and forests too.

Which of the following make the correct combination?

a) Statement 1 is false but Statement 2 and 3 are correct

b) Statement 1 and 2 are correct while 3 is wrong

c) None of the mentioned statements are correct

d) All of the mentioned

Q9.Transition function maps.

a) Σ * Q -> Σ b) Q * Q -> Σ

c) Σ * Σ -> Q d) Q * Σ -> Q

Q10. Languages of a automata is

a) If it is accepted by automata b) If it halts

c) If automata touch final state in its life time d) All language are language of automata

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