Online Test_TCS(TE_B)_18 july

Total points 8/8

Time :12:16 to 1pm

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Amey Thakur

✓ 1]Given a NFA with N states, the maximum number of states in an equivalent minimized DFA is at least. * 1/1

- N^2
- 2^N ✓
- 2N
- N

✓ 2]Transition function maps. * 1/1

- Σ * Q -> Σ
- Q * Q -> Σ
- Σ * Σ -> Q
- Q * Σ -> Q ✓

✓ 3] Language of finite automata is. * 1/1

- Type 3 ✓
- Type 2
- Type 0
- Type 1

✓ 4]Number of states require to simulate a computer with memory capable of storing ‘3’ words each of length ‘8’ * 1/1

- 3 * 28
- 2(3*8) ✓
- 2(3+8)
- None of the mentioned

✓ 5]An FSM with * 1/1

- ○ stack is more powerful than an FSM with no stack
- ○ stacks is more powerful than a FSM with 1 stack
- ◉ both (a) and (b) ✓
- ○ None of these

✓ 6]A FA with ε- Transitions is * 1/1

- ○ Deterministic FA
- ◉ Non deterministic FA ✓

✓ 7]String X is accepted by finite automata if . * 1/1

- ○ δ*(q,x) E A
- ○ δ(q,x) E A
- ◉ δ*(Q0,x) E A ✓
- ○ δ(Q0,x) E A

✓ 8]Languages of a finite automata is * 1/1

- ◉ Regular language ✓
- ○ Context free language
- ○ Context sensitive language