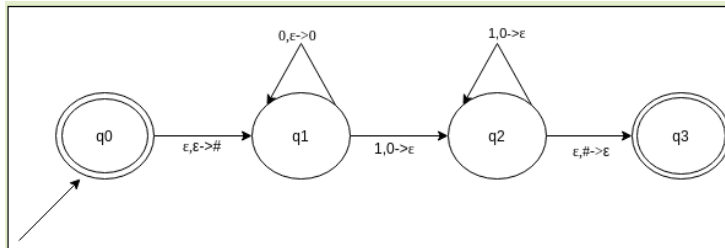


TOC Unit V MCQ

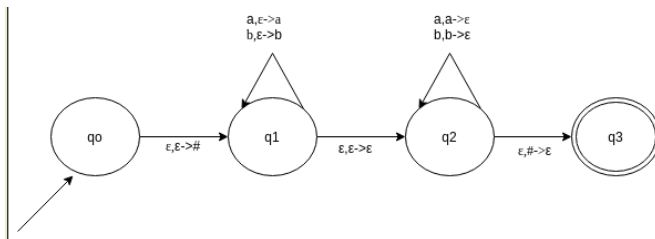
1. Which of the following option resembles the given PDA?



- a. $\{0^n 1^n \mid n \geq 0\}$
- b. $\{0^n 1^{2n} \mid n \geq 0\}$
- c. $\{0^{2n} 1^n \mid n \geq 0\}$
- d. None of the mentioned

Answer: (a). $\{0^n 1^n \mid n \geq 0\}$

2. Which of the following correctly resembles the given state diagram?



- a. $\{ww^r \mid w = (a+b)^*\}$
- b. ϵ is called the initial stack symbol
- c. Both (a) and (b)
- d. None of the mentioned

Answer: (a). $\{ww^r \mid w = (a+b)^*\}$

3. A push down automaton employs _____ data structure.

- a. Queue
- b. Linked List
- c. Hash Table
- d. Stack

Answer: (d). Stack

4. Which of the following allows stacked values to be sub-stacks rather than just finite symbols?

- a. Push Down Automaton
- b. Turing Machine
- c. Nested Stack Automaton

d. None of the mentioned

Answer: (c). Nested Stack Automaton

5. The class of languages not accepted by non deterministic, nonerasing stack automata is _____

a. NSPACE(n^2)

b. NL

c. CSL

d. All of the mentioned

Answer: (d). All of the mentioned

6. A push down automaton with only symbol allowed on the stack along with fixed symbol.

a. Embedded PDA

b. Nested Stack automata

c. DPDA

d. Counter Automaton

Answer: (d). Counter Automaton

7. Which of the operations are eligible in PDA?

a. Push

b. Delete

c. Insert

d. Pop

Answer: (a). Push

8. A string is accepted by a PDA when

a. Stack is empty

b. Acceptance state

c. both a and b

d. None of the mentioned

Answer: (c). both a and b

9. The following move of a PDA is on the basis of:

a. Present state

b. Input Symbol

c. both a and b

d. None of the mentioned

Answer: (c). both a and b

10. A context free grammar can be recognized by

a. Push down automata

b. 2 way linearly bounded automata

- c.both a and b
- d.None of the mentioned

Answer: (c). both a and b

11.Halting states are of two types. They are:

- a.Accept and Reject
- b.Reject and Allow
- c.Start and Reject
- d.None of the mentioned

Answer: (a).Accept and Reject

12.A push down automata can be represented as:

PDA= ϵ -NFA +[stack]

State true or false:

- a.true
- b.false
- c.may be
- d.can't say

Answer: (a). true

13.A pushdown automata can be defined as: $(Q, \Sigma, G, q_0, z_0, A, \delta)$

What does the symbol z_0 represents?

- a.an element of G
- b.initial stack symbol
- c.top stack alphabet
- d.all of the mentioned

Answer: (d). all of the mentioned

14.Which of the following correctly recognize the symbol ' δ ' in context to PDA?

- a.Moves
- b.transition function
- c.or/not symbol
- d.none of the mentioned

Answer: (a). Moves

15.Which among the following is true for the given statement?

Statement :If there are strings R and T in a language L so that R is prefix of T and R is not equivalent to T.

- a.No DPDA can accept L by empty stack
- b.DPDA can accept L by an empty stack

c.L is regular

d.None of the mentioned

Answer: (a).No DPDA can accept L by empty stack