1. Define the terms a language over a vocabulary and the phrase – structure grammar.
asked in 2068

2. What is context free grammar?
asked in 2073

3. Define the terms a language over a regular grammer and regular expression.
asked in 2074

4. Define the terms a language over a vocabulary and the phrase-structure grammar.
asked in 2065

5. Let G be the grammar with vocabulary V = {S, A, a, b}, t = {a, b}, starting symbol S and production P = {S→ aA, S→ b, A→ aa}. What is L(G), the language of this grammar ?
asked in 2066

6. Discuss the types of phrase structure grammars and their relations.
asked in 2067

7. Define the terms a language over a regular grammar and a regular expression.
asked in 2069

8. What is phrase-structure grammar?
asked in 2070

9. Differentiate between DFA and NFA.
asked in 2073

10. Distinguish between deterministic and nondeterministic finite state automaton.
asked in 2065

11. Determine the kleen closures of the sets A = {0}, B = {0, 1}, C = {11}.
asked in 2066

12. Give formal definition of regular expressions over a set I.
asked in 2067

13. What is regular expression?
asked in 2070

14. Explain the state transition function of the finite state machine with a suitable table.
asked in 2074

15. Explain the static transition function of the finite state machine with a suitable table.
asked in 2068

16. Let A = {0, 1}. Show that the following expressions are all regular expressions over A
a) 0* (0v1)* b) 00* (0v1)* 1.
asked in 2069

17. Define regular expression over a non-empty set A.
asked in 2068

18. What are the strings in the regular sets specified by the regular expression (10)*.
asked in 2071

19. What is a phrase-structure grammar?
asked in 2072

20. Define regular expression over a non empty set A.
asked in 2074

21. Explain non-deterministic finite state automata.
asked in 2069

22. Let G be the grammar with vocabulary V = {S, 0, 1}, set of terminals T = {0, 1}, starting symbol S, and productions P = {S → 11S, S → 0}. What is L (G), the language of this grammar?
asked in 2071

23. What are the strings in the regular sets specified by the regular expression 10*.
asked in 2072

24. Let S = {0, 1}. Give the regular expression corresponding to the regular set given:
a) {00, 010, 0110, 011110, ...}
b) {0, 001, 000, 00001, 00000, 0000001, ...}
asked in 2069

25. Let A = {p, q, r} . Give the regular set corresponding to the regular expression give:
(a) (pvq)rq* (b) p(q q) r.
asked in 2074

26. Let A = {p, q, r}. Give the regular set corresponding to the regular expression given:
a) (p v q) ┌ q* b) p(q q)* r.
asked in 2068

27. Let G be the grammar with vocabulary V= {S, A, a, b}, set of terminals T ={a,b}, starting symbol S, and productions P ={S→aA, S→b, A→aa}. What is L(G), the language of this grammar?
asked in 2073

28. Explain the finite-state with output with suitable examples.
OR
Explain the deterministic finite state automata. When are two finite state automata equivalent?Give an example.
asked in 2074

29. Define finite-state with output with suitable examples.
OR
Define deterministic finite state automata. When are two finite state automata equivalent? Give an
example.
asked in 2065

30. Define deterministic finite state automata. Construct a DFA whose language is the set of strings that ends with 111 and contains odd number of 1's.
asked in 2066

31. How do you distinguish deterministic and nondeterministic finite-state automaton? Give suitable examples.
asked in 2067

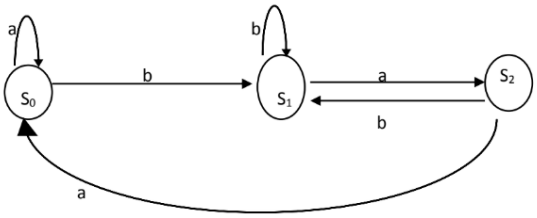
32. Let G be the grammar with vocabulary V = {S, 0, 1}, set of terminals T= {0, 1}; starting symbol S, and productions P= {S→11s, S→0}. Determine the language L(G) of this grammar.
asked in 2070

33. Define finite – state machines with output.
asked in 2068

34. Construct a nondeterministic finite-state automaton that recognizes the regular set $1^* \cup 01$.
asked in 2071

35. Let G be the grammar with vocabulary V = {S, 0, 1}, set of terminals T = {0, 1}, starting symbol S, and production P ={ S→ 11S,S→0}. What is the L(G) of this grammar?
asked in 2072

36. Construct the transition table of the finite – state machine whose diagraph is shown?

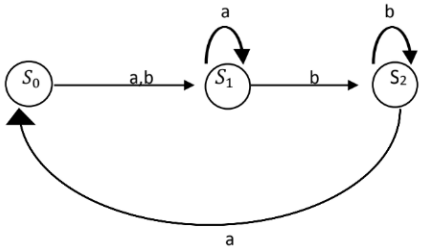


asked in 2068

37. Define deterministic finite state automata. When are two finite state automata equivalent? Explain it.
asked in 2069

38. Let G = (V, S, v0, |→), where V = { v0, x, y, z}, S = {x, y, z } and
|→ : v0 |→ xv0
v0 |→ yv0
v0 |→ z
What is L(G), the language of this grammar?
asked in 2068

39. Construct the state transition table of the finite state machine whose diagram is shown:



asked in 2069

40. Discuss finite state machine with output with suitable example. What are the strings in the regular set specified by the regular expression 01*0?
asked in 2073

41. Let G be the grammar with vocabulary V = {S, 0,1} , set of terminals T = {0,1} , starting symbol S, and
productions P = {S → 11S, S → 0}. What is L(G), the language of this grammar?
asked in 2065

42. Explain non-homogeneous finite automata and language of NFA with suitable example.
asked in 2066

43. What do you mean by phase-structure grammar? Let C1 be the grammar with vocabulary V = {S, 0, 1}; set of terminals T= {0, 1}; starting symbol S, and productions P= {S→11s, S→0}. Determine the language L(G) of this grammar.
asked in 2067

44. Discuss finite state machine without output with suitable example. What are the strings in the regular set specified by the regular expression 0* 1*?
asked in 2070