

There are six different categories are selected for examples of DFA, which are listed below

1. Accept Only given Input
2. Start and Ends with
3. Contains string
4. Specific Length
5. Divisibility
6. Even and odd string

Q1. Design a DFA over  $\Sigma = \{0, 1\}$  that accepts the only input a string "10".

Q 2. Construct a DFA with  $\Sigma = \{a, b\}$  that accepts the only input "aaab".

Q 3. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  that start with "0".

Q 4. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  that start with "01".

Q 5. Construct DFA, which accepts all the strings over alphabets  $\Sigma \{0,1\}$  that ends with "0".

Q 6. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  that end with "10".

Q 7. Construct a DFA with sigma  $\Sigma = \{0, 1\}$ , accepts those string which starts with one and ends with 0.

Q 8. Construct DFA, which accepts all the strings over  $\Sigma \{0,1\}$  where each contains "0".

Q 9. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  where each string contains "00".

Q 10. Construct a DFA with sigma  $\Sigma = \{0, 1\}$ , accepts all strings that contain three consecutive 0's.

Q 11. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  where each string contains "101" as a substring.

Q 12. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  where the length of each string is exactly 2.

Q 13. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  where the length of each string is  $\geq 2$ .

Q 14. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  where the length of each string is  $\leq 2$

Q 15. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  where the length of each string is EVEN.

Q 16. Construct DFA, which accept all the string over alphabets  $\Sigma \{0,1\}$  where the length of each string is ODD.

Q 17. Construct DFA, which accepts all the string over alphabets  $\Sigma \{0,1\}$  where binary integers divisible by 3

Q 18. Construct DFA, which accepts all the string over alphabets  $\Sigma \{0,1\}$  where binary integers divisible by 4.

Q 19. Draw a DFA for the language that accepts strings containing neither '00' nor '11' as a substring over the input alphabet  $\Sigma = \{0, 1\}$

Q 20. Design a DFA that accepts strings with '01' or '10' as a substring over input

alphabets  $\Sigma = \{0, 1\}$ .

Q 21. Construct a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings ending in either '01' or '10'.

Q 22. Construct a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings containing exactly two '0'.

Q 23. Design a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings containing at least two '0'.

Q 24. Draw a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings containing at most two '0'.

Q 25. Construct a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings starting and ending with '0' always.

Q 26. Design a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings starting and ending with different characters.

Q 27. Design a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings starting and ending with same characters.

Q 28. Design a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings containing an odd number of total zeros.

Q 29. Construct a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings starting with '00' or '11'.

Q 30. Construct a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings ending with '0011'.

Q 31. Construct DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings ending with '0110'.

Q 32. Construct a DFA with sigma  $\Sigma = \{0, 1\}$  for the language accepting strings ending with '00'.

Q 33. Design a DFA with sigma  $\Sigma = \{a, b\}$ , accepts those strings that have an even number of "0's" and an even number of "1's".