

Q 1 - What is the worst case time complexity of linear search algorithm?

- A - $O(1)$
- B - $O(n)$
- C - $O(\log n)$
- D - $O(n^2)$

Q 2 - Which of the following uses FIFO method

- A - Queue
- B - Stack
- C - Hash Table
- D - Binary Search Tree

Q 3 - Which of the following uses LIFO method

- A - Queue
- B - Stack
- C - Hash Table
- D - Binary Search Tree

Q 4 - Prefix notation is also known as

- A - Reverse Polish Notation
- B - Reverse Notation
- C - Polish Reverse Notation

D - Polish Notation

Q 5 - Postfix notation is also known as

A - Reverse Polish Notation

B - Reverse Notation

C - Polish Reverse Notation

D - Polish Notation

Q 6 - push() and pop() functions are found in

A - queues

B - lists

C - stacks

D - trees

Q 7 - enqueue() and dequeue() functions are found in

A - queues

B - lists

C - stacks

D - trees

Q 8 - Stack is used for

A - CPU Resource Allocation

B - Breadth First Traversal

C - Recursion

D - None of the above

Q 9 - Queue is used for

A - CPU Scheduling

B - Breadth First Traversal

C - Recursion

D - None of the above

Q 10 - Which of the following is an example for a postfix expression? a)

a) $a * b(c + d)$

b) $abc * + de - +$

c) $+ab$

d) $a + b - c$

Q 11 Reverse Polish Notation is the reverse of a Polish Notation a)

True

b) False

Q 12 In Postfix expressions, the operators come after the operands. a)

True

b) False

Q 13 Which of these operators have the highest order of precedence? a)

'(' and ')'

b) '*' and '/'

c) '~' and '^'

d) '+' and '-'

14. What is the result of the given postfix expression? abc^{*+} where $a=1$, $b=2$, $c=3$.

a) 4

b) 5

c) 6

d) 7

15. What is the result of the following postfix expression?

$ab^{*}cd^{*+}$ where $a=2$, $b=2$, $c=3$, $d=4$.

a) 16

b) 12

c) 14

d) 10

16. Evaluate the postfix expression $ab + cd/-$ where $a=5, b=4, c=9, d=3$. a)

23

b) 15

c) 6

d) 10

17. Evaluate and write the result for the following postfix expression

$abc^*+de^*f+g^*+$ where $a=1, b=2, c=3, d=4, e=5, f=6, g=2$.

a) 61

b) 59

c) 60

d) 55

18. What would be the Prefix notation for the given equation?

$a+b-c/d\&e|f$

a) $| \&-+ab/cdef$

b) $\&|-+ab/cdef$

c) $| \&-ab+/cdef$

d) $| \&-+/abcdef$

19. What would be the Prefix notation for the given equation? $(a+(b/c)*(d^e)-f)$

a) $-+a^*/^bcdef$

b) $-+a^*/bc^def$

c) $-+a^*b/c^def$

d) $-a^*/bc^def$

20. What is the correct postfix expression for the following expression?

$a+b*(c^d-e)^{(f+g^*h)}-i$

a) $abc^de-fg+^{*^*}+i-$

b) $abcde^-fg+^{*^*}h^*+i-$

c) $abcd^e-fgh^{*+}^{*^*}+i-$

d) $ab^-dc^{*+}ef^gh^{*+}+i-$