Q.21 Which of the following is false about DCLL?

A. Traversal can be start from either first node or last node

B. Addition and Deletion operations can be performed in O(1) time.

C. Searching can be done in O(log n) time.

D. DCLL can be traverse in both forward and backward direction.

Correct Answer : C

Q.22   Which of the following data structure is used to implement depth first traversal algorithm?

A. Array
B. Linked List
C. Stack
D. Queue

Time Out

Correct Answer : C

Q.23 Which of the following is not a valid operation on stack?

A. Push
B. Peek
C. Pop
D. Top

Correct Answer : D

Time
Out

Q.24 What is the condition to check stack is full or not in a dynamic stack?

A. top == SIZE
B. top == SIZE-1
C. top == NULL
D. None of the above

Correct Answer : D
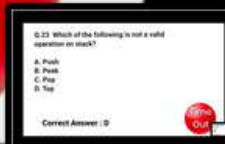
Q.25 Stack data structure works in _____ manner.

A. First In First Out
B. First In Last Out
C. Last In First Out
D. Both options 1 and 3
E. Both options 2 and 3

Correct Answer : C

Q.26 Stack can be implemented by using _____.

A. Linked List

B. Array

C. Both options 1 and 2

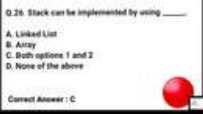D. None of the above

Correct Answer : C

Q.27 Which of the following functions can be used to implement dynamic stack

functionalities push( ) & pop( )?

A. add_last( ) & delete_first( )

B. add_first( ) & delete_last( )

C. add_first( ) & delete_first( )

D. None of the above

Time Out

Correct Answer : C

Q.28 Convert given infix expression into its equivalent postfix expression: Infix

expression is: (A*B)*(C/D)+E*F-G*H

A. AB*CD/EF**+GH*-

B. AB*CD/*EF*+GH*-

C. ABCD*/*EF*+GH*-

D. AB*CD/*EF*GH+*-

Correct Answer : B

Q.29   Convert given prefix expression into its equivalent
postfix: - + * / * a b c d / e f * h g
A. ab*c/d*ef/+h*g
B. ab*c/d*ef/+hg*-
C. abc*/d*ef/+hg*-
D. ab*cd/*ef/+hg*-

Correct Answer : B

Q.30 Which of the following notation is used to represent asymptotic tight bound?

A. Big Oh (O)
B. Big Omega (Ω))
C. Big Theta (θ))
D. None of the above

Correct Answer : C

Q.31   If an algorithm takes maximum amount of
time to run to completion then it
is referred as:

A. best case time complexity
B. worst case time complexity
C. average case time complexity
D. all of the above
E. none of the above

Correct Answer : B

Q.32   There is a need of data structure in programming to achieve:

A. Encapsulation
B. Efficiency
C. Polymorphism
D. None of the above

Correct Answer : B

Q.32

What is an asymptotic average case time complexity of a linear search algorithm?

A. O(n)

B. O(n/2)

C. θ)(n)

D. θ)(n/2)

E. both options 3 and 4

Correct Answer : C

Q.33

Data structures is a _____.

A. software

B. programming language

C. programming concept

D. all of the above

E. none of the above

Correct Answer : C

Q.34 In a linear search algorithm, worst case occurs: (Single Choice)*

A. If the key element is exist at first position in a
 collection/list.
B. If the key element is exist at last position in a
 collection/list.
C. If the key element does not exist in the list.
D. If either the key element exist at last position or does not exist in the list.

Correct Answer : D