Ops: A. 12

B. 13

C. 11

D. 10

Reset

Q 10. If you are using Bubble sort for sorting the given numbers in ascending order, then find out the number of swappings needed.

10, 14, 8, 5, 11, 1, 7

Ops: A. 14

B. 10

C. 15

D. 12

Reset

SECTION 01/02
Previous Section

SECTION 02/02
Next Section

Reset

Q 09. Evaluate the given postfix expression.

2 3 + 5 * 2 3 + 4 + *

Ops:

A. ○ 200

B. ○ 210

C. ◉ 225

D. ○ 220

Reset

Q 10. If you are using Bubble sort for sorting the given numbers

Q 01. If the base address of a two dimensional array A[10][20] is 100, then find out the address of an element A[2][6] in the array.
**Assume 4 words per memory cell and elements are arranged in row major order.

Ops:
A. ○ 245
B. ○ 284
C. ◉ 286
D. ○ 278

Reset

Q 02. If you are using Bubble sort for sorting the given numbers in ascending order, then find out the number of swappings needed.
2, 9, 3, 6, 8, 1, 5

Ops:
A. ○ 11
B. ◉ 12
C. ○ 10
D. ○ 13

Reset

Q 03. If the base address of a two dimensional array A[70][10] is 600, then find out the address of an element A[2][7] in the array. **Assume 4 words per memory cell and elements are arranged in column major order.

Ops:
A. ○ 2658
B. ○ 2345
C. ◉ 2543
D. ○ 2568

Reset

Q 08. Find out the maximum number of nodes present in a binary tree of height 5.

Ops: A. ○ 32

B. ◉ 16

C. ○ 31

D. ○ 15

Reset

Q 09. Which of the following statements is **incorrect** for Linked List data structure?

Ops: A. ◉ Memory allocation from stack

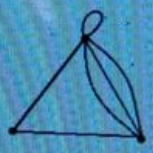
B. ○ It occupies more memory than array

C. ○ Memory allocation from Heap

D. ○ Size is not fixed

Reset

Q 10. Find out the sum of the degree of vertices in the pseudograph as shown in the image.



Ops: A. ○ 11

B. ○ 6

C. ○ 12

D. ◉ 8

Reset

Q 06. Find out the sum of the degree of vertices in the pseudograph as shown in the image.

Ops:
A. ○ 11
B. ◉ 5
C. ○ 9
D. ○ 10

Reset

Q 07. Match the given data structures with their memory allocation type.

Data Structures

1. Arrays
2. Linked Lists

Memory is allocated from:

A. Stack
B. Heap

Ops:
A. ◉ 1-B, 2-A
B. ○ 1-A, 2-A
C. ○ 1-B, 2-B
D. ○ 1-A, 2-B

D. ○ 2568

Reset

Q 04. Evaluate the given postfix expression.

10 5 4 2 + 5 * + 3 + *

Ops: A. ○ 320

B. ○ 220

C. ◉ 380

D. ○ 280

Reset

Q 05. If we draw a binary search tree by inserting the given numbers from left to right, then which of the following would come on level 3 of the BST?

2, 1, 17, 34, 16, 5

Ops: A. ○ 34

B. ○ 5

C. ○ 16

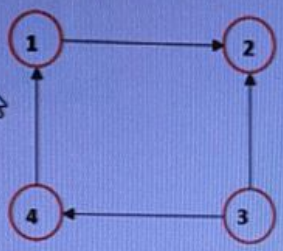
D. ◉ 1

Reset

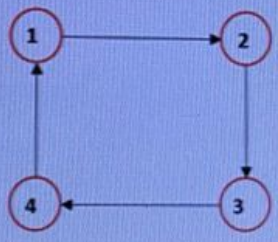
Q 06. Find out the sum of the degree of vertices in the pseudograph as shown in the image.

$$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{bmatrix}$$

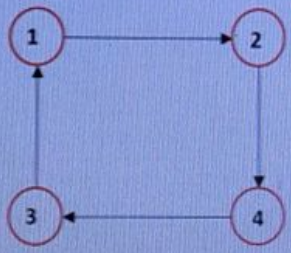
Ops: A.



B.



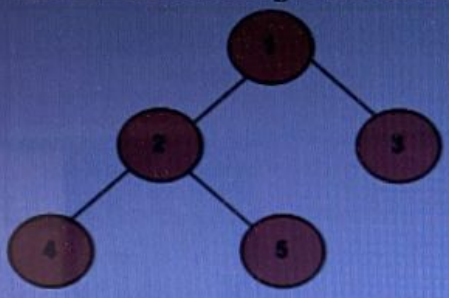
C.



D.

Submit

Q 07. Which of the following is the correct postorder traversal of the given tree?



Ops: A. 4 5 2 3 1

B. 2 3 4 5

C. 1 2 4 5 3

D. 4 2 5 1 3

Reset

Q 08. Which of the following statements is/are correct for a priority queue?

1. An element with high priority is dequeued before an element with low priority
2. If two elements have the same priority, they are served according to their order in the queue
3. If two elements have the same priority, they can be served in any random order

Ops: A. Only 1

B. 1 and 2

C. Only 3

D. Only 2

Q 09. Linked lists are used to implement -

1. Stack
2. Queue
3. Trees

Ops:

A. ◉ All 1, 2, and 3

B. ○ 2 and 3

C. ○ 1 and 2

D. ○ 1 and 3

Reset

Q 10. Which of the following data structures is non-linear?

Ops:

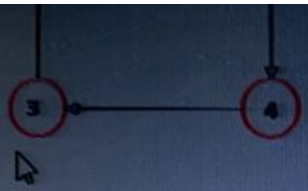
A. ○ Linked List

B. ○ Array

C. ◉ Graph

D. ○ Stack

Reset



Reset

Q 07. Evaluate the given postfix expression.

10 5 4 2 + 5 * + 3 + *

Ops: A. ○ 220

B. ○ 280

C. ◉ 380

D. ○ 320

Reset

Q 08. Find out the array representation of the given max heap, if the value 20 is deleted from it. 22, 21, 20, 19

Ops: A. ○ 21, 19, 22

B. ○ 19, 21, 22

C. ○ 21, 22, 19

D. ◉ 22, 21, 19

Reset

Q 09. If the base address of a two dimensional array A[10][20] is 100, then find out the address of

D. Graph

Reset

Q 03. Find out the sum of the degree of vertices in the pseudograph as shown in the image.

Ops: A. 12
B. 6
C. 8
D. 11

Reset

Q 04. In a min heap, the left child is located at -

Ops: A. k/2 index
B. 2*k index
C. (k+1)/2 index
D. 2*k+1. index

Reset

Q 05. Which of the following is the correct postorder traversal of the given tree?

01. Data Structures 10 questions, 1 mark each

Q 01. Match the given data structures with their memory allocation type.

Data Structures

1. Arrays
2. Linked Lists

Memory is allocated from:

A. Stack

B. Heap

Ops: A. ○ 1-A, 2-B

B. ○ 1-B, 2-B

C. ◉ 1-A, 2-A

D. ○ 1-B, 2-A

Reset

Q 02. Which of the following data structures is non-linear?

Ops: A. ○ Stack

B. ○ Linked List

C. ○ Array

D. ◉ Graph

Reset

Q 03. Find out the sum of the degree of vertices in the pseudograph as shown in the image.

2

C. ○ 21, 22, 19

D. ◉ 22, 21, 19

Reset

Q 09. If the base address of a two dimensional array A[10][20] is 100, then find out the address of an element A[2][6] in the array.

**Assume 4 words per memory cell and elements are arranged in row major order.

Ops: A. ○ 284

B. ○ 245

C. ○ 286

D. ◉ 278

Reset

Q 10. If the base address of a two-dimensional array A[30][50] is 500, then find out the address of an element A[5][10] in an array.

**Assume 4 words per memory cell and elements arranged in row-major order.

Ops: A. ○ 1540

B. ◉ 1160

C. ○ 1189

D. ○ 1124

Reset

Q 01. If the base address of a two dimensional array A[70][10] is 600, then find out the address of an element A[2][7] in the array. **Assume 4 words per memory cell and elements are arranged in column major order.

Ops: A. ○ 2568

B. ○ 2345

C. ○ 2658

D. ◉ 2543

Reset

Q 02. Find out the array representation of the given min heap, if the value 2 is deleted from it.
1, 2, 3, 4

Ops: A. ○ 1, 4, 3

B. ◉ 4, 3, 1

C. ○ 3, 4, 1

D. ○ 1, 3, 4

Reset

10 questions, 1 mark each

Q 01. Which of the following statements is **incorrect** for Linked List data structure?

Ops:
A. ○ Memory allocation from Heap
B. ○ It occupies more memory than array
C. ○ Size is not fixed
D. ◉ Memory allocation from stack

Reset

Q 02. Find out the sum of the degree of vertices in the pseudograph as shown in the image.

Ops:
A. ○ 9
B. ○ 10
C. ○ 11
D. ◉ 5

D. ○ Only 2

Reset

Q 05. Which of the following data structures is non-linear?

Ops: A. ○ Array

B. ○ Stack

C. ○ Linked List

D. ◉ Graph

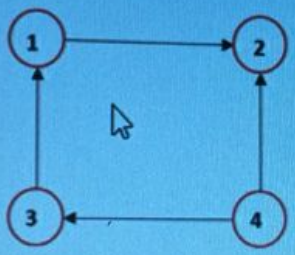
Reset

Q 06. Find out the array representation of the given min heap, if th

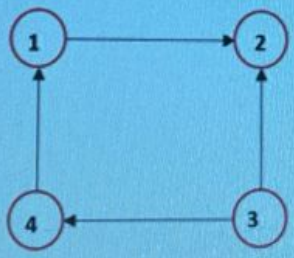
Q 08. From the given adjacency matrix find out the correct directed graph.

$$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{bmatrix}$$

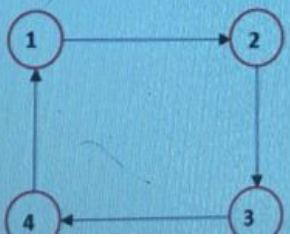
Ops: A.



B.



C.



D. ○ 1, 3, 4

Reset

Q 03. If the base address of a two dimensional array A[10][20] is 100, then find out the address of ar element A[2][6] in the array.

**Assume 4 words per memory cell and elements are arranged in row major order.

Ops: A. ○ 284

B. ◉ 278

C. ○ 286

D. ○ 245

Reset

Q 04. From the given adjacency matrix find out the correct directed graph.

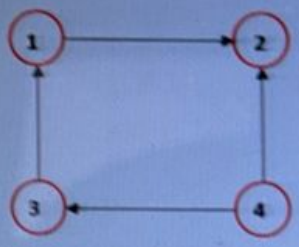
$$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{bmatrix}$$

Reset

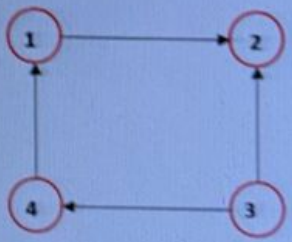
Q 08. From the given adjacency matrix find out the correct directed graph.

$$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{bmatrix}$$

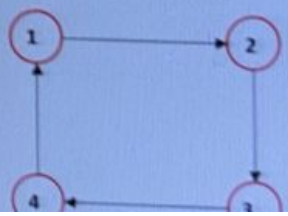
Ops: A.



B.



C.

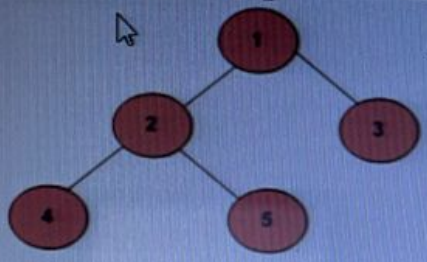


C. ○ (k+1)/2 index

D. ◉ 2*k+1. index

Reset

Q 05. Which of the following is the correct postorder traversal of the given tree?



Ops: A. ◉ 4 5 2 3 1

B. ○ 1 2 4 5 3

C. ○ 1 2 3 4 5

D. ○ 4 2 5 1 3

Reset

Q 06. From the given adjacency matrix find out the correct directed graph.

$$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{bmatrix}$$

Q 05. Find out the array representation of the given max heap, if the value 20 is deleted from it. 22, 21, 20, 19

Ops:

A. ○ 21, 22, 19

B. ○ 19, 21, 22

C. ◉ 22, 21, 19

D. ○ 21, 19, 22

Reset

Q 06. Match the given data structures with their memory allocation type.

Data Structures

1. Arrays
2. Linked Lists

Memory is allocated from:

A. Stack

B. Heap

Ops:

A. ○ 1-B, 2-A

B. ◉ 1-A, 2-B

C. ○ 1-B, 2-B

D. ○ 1-A, 2-A

is an appropriate data structure for breadth first search algorit

Ops: A. Queue

B. Union find

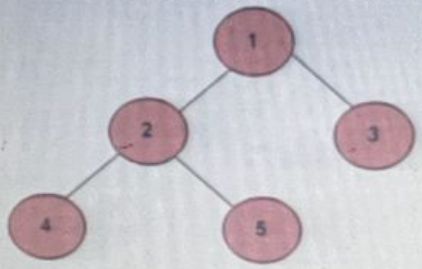
C. Priority queue

D. Stack

Reset

02. Algorithms
00 / 15 attempted

Q 04. Which of the following is the correct postorder traversal of the given tree?



Ops: A. 1 2 3 4 5

B. 4 5 2 3 1

C. 4 2 5 1 3

D. 1 2 4 5 3

Reset

Submit

Q 05. Which of the following statements is **incorrect** for Linked List data structure?

Q 05. Which of the following statements is **incorrect** for Linked List data structure?

Ops: A. ○ It occupies more memory than array

B. ◉ Memory allocation from stack

C. ○ Memory allocation from Heap

D. ○ Size is not fixed

Reset

Q 06. Find out the array representation of the given min heap, if the value 2 is deleted from it.
1, 2, 3, 4

Ops: A. ○ 4, 3, 1

B. ◉ 1, 4, 3

C. ○ 1, 3, 4

D. ○ 3, 4, 1

Reset

Q 07. Evaluate the given postfix expression.
10 5 4 2 + 5 * + 3 + *

Submit

Q 07. Evaluate the given postfix expression.

10 5 4 2 + 5 * + 3 + *

Ops: A. ○ 280

B. ◉ 380

C. ○ 220

D. ○ 320

Reset

Q 08. If we draw a binary search tree by inserting the given numbers fro
would be the height of the BST?
1, 4, 3, 5, 7, 9

Ops: A. ○ 4

B. ○ 3

10 questions, 1 mar

Q 01. Find out the maximum number of nodes present in a binary tree of height 5.

Ops: A. ○ 32

B. ○ 31

C. ◉ 16

D. ○ 15

Reset

Q 02. Find out the sum of the degree of vertices in the pseudograph as shown in the image.

Ops: A. ○ 10

B. ◉ 5

C. ○ 11

D. ○ 9

Reset

Submit

Reset

Q 03. In a min heap, the left child is located at -

Ops:
A. ○ k/2 index
B. ○ 2*k index
C. ◉ 2*k+1. index
D. ○ (k+1)/2 index

Reset

Q 04. In a priority queue, if two elements have the same priority, then how should they be served?
1. According to their order in the queue
2. According to a random selection

Ops:
A. ○ Both 1 and 2
B. ◉ Only 1
C. ○ Neither 1 nor 2
D. ○ Only 2

Reset

Q 08. If we draw a binary search tree by inserting the given numbers from left to right, then what would be the height of the BST?

1, 4, 3, 5, 7, 9

Ops:

A. ○ 4

B. ◉ 3

C. ○ 5

D. ○ 2

Reset

Q 09. If you are using Bubble sort for sorting the given numbers in ascending order, then find out the number of swappings needed.

2, 9, 3, 6, 8, 1, 5

Ops:

A. ◉ 12

B. ○ 13

C. ○ 11

D. ○ 10

Reset