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Time taken 13 mins 20 secs

Grade 17.00 out of 17.00 (100%)

Question **1**

Correct

Mark 1.00 out of 1.00

"[Array](#) implementation of [Stack](#) is not dynamic", which of the following statements supports this argument?

Select one:

- ☐ 1. All of these
- ☐ 2. a runtime exception halts execution
- ☒ 3. space allocation for [array](#) is fixed and cannot be changed during run-time
- ☐ 4. user unable to give the input for [stack](#) operations

✓ Correct

Correct

The correct answer is: space allocation for [array](#) is fixed and cannot be changed during run-time

Question **2**

Correct

Mark 1.00 out of 1.00

The number of moves required to solve the tower of Hanoi with number of disks $n = 4$ is _____.

- ☐ a. 7
- ☐ b. 9
- ☐ c. 17
- ☒ d. 15
- ☐ e. None of these

✓

Your answer is correct.

The correct answer is:

15

Question **3**

Correct

Mark 1.00 out of 1.00

Disks piled up one above the other represents a _____.

- ☒ a. [Stack](#)
- ☐ b. Queue
- ☐ c. All of these
- ☐ d. Linked List
- ☐ e. [Array](#)



Your answer is correct.

The correct answer is:

[Stack](#)

Question **4**

Correct

Mark 1.00 out of 1.00

The function that returns the top element of a [stack](#) is:

- ☐ a. Push()
- ☐ b. Pop()
- ☐ c. None of these.
- ☐ d. Empty()
- ☒ e. Peek()



Your answer is correct.

The correct answer is:

Peek()

Question **5**

Correct

Mark 1.00 out of 1.00

For implementing recursive function the data structure used is _____ .

- ☒ a. [Stack](#)
- ☐ b. Queue



- ☐ c. [Array](#)
- ☐ d. [Tree](#)
- ☐ e. Linked List

Your answer is correct.

The correct answer is:

[Stack](#)

Question **6**

Correct

Mark 1.00 out of 1.00

Which of the following real world scenarios would you associate with a "[stack](#)" data structure?

- ☐ a. Registering for a cultural event which selects on a first come first serve basis
- ☐ b. Students standing in a line at the fee counter
- ☒ c. Piling up of chairs one above the other in a canteen
- ☐ d. Offering viva slots based on the priority of the group number
- ☐ e. None of these



Your answer is correct.

The correct answer is:

Piling up of chairs one above the other in a canteen

Question **7**

Correct

Mark 1.00 out of 1.00

Which of the following data structures can be used for parentheses matching?

- ☐ a. Linked List
- ☒ b. [Stack](#)
- ☐ c. Queue
- ☐ d. binary [tree](#)
- ☐ e. All of these



Your answer is correct.

The correct answer is:

[Stack](#)

Question **8**

Correct

Mark 1.00 out of 1.00

Which of the following data structures can be used for implementing a function that converts an integer (in decimal) to binary string?

- ☐ a. [Array](#)
- ☐ b. Queue
- ☒ c. [Stack](#)
- ☐ d. Linked List
- ☐ e. binary [tree](#)



Your answer is correct.

The correct answer is:

[Stack](#)

Question **9**

Correct

Mark 1.00 out of 1.00

Which of the following statement(s) is NOT correct?

- ☐ a. Top of the [Stack](#) always contain the new element
- ☐ b. All of these are correct
- ☐ c. The value at the bottom of the [stack](#) is always null
- ☒ d. [Stack](#) is a FIFO data structure
- ☐ e. [Stack](#) can be implemented using linked list



Your answer is correct.

The correct answer is:

[Stack](#) is a FIFO data structure

Question **10**

Correct

Mark 1.00 out of 1.00

[Stack](#) is based on _____ concept. (select all the correct ones)

☒ a. LIFO



☐ b. LILO

☐ c. FIFO

☒ d. FILO



Your answer is correct.

The correct answers are:

LIFO,

FILO

Question **11**

Correct

Mark 1.00 out of 1.00

Which of the following is not the application of [stack](#)?

☐ a. Integer to binary conversion

☒ b. Asynchronous Data transfer



☐ c. Reversing the string

☐ d. None of these

☐ e. Evaluating postfix expression

Your answer is correct.

The correct answer is:

Asynchronous Data transfer

Question **12**

Correct

Mark 1.00 out of 1.00

Suppose [stack](#) contains elements in order 2, 5, 6, 7, 0, 1. How many pop operations should be executed to remove element '6' from the [stack](#)?

- ☐ a. 5
- ☐ b. 3
- ☐ c. 0
- ☒ d. 4
- ☐ e. 1



Your answer is correct.

The correct answer is:

4

Question **13**

Correct

Mark 1.00 out of 1.00

Which of the following data structure is used to check parenthesis in any expression?

- ☐ a. Linked List
- ☒ b. [Stack](#)
- ☐ c. Arrays
- ☐ d. Priority Queue
- ☐ e. Queue



Your answer is correct.

The correct answer is:

[Stack](#)

Question **14**

Correct

Mark 1.00 out of 1.00

Which of the following data structure is used in an "Undo" mechanism of any text editor?

- ☐ a. None of these
- ☐ b. [Stack](#) and Queue both
- ☐ c. Queue
- ☒ d. [Stack](#)



Your answer is correct.

The correct answer is:

[Stack](#)

Question **15**

Correct

Mark 1.00 out of 1.00

Consider that the [stack](#) is already having one element inserted, now I want to insert a few more elements in it. top points to the topmost element in the [stack](#), newnode refers to the element you want to insert and link refers to the previously inserted element in the [stack](#). The value inserted by the user should be taken as the data for a newnode Which snippet can help you to insert elements at top?

Select one:

- ☐ 1. newnode->data = value; newnode->link = top;
- ☒ 2. newnode->data = value; newnode->link = top; top = newnode;
- ☐ 3. newnode->data = value; newnode->link = top; top = newnode;
- ☐ 4. newnode->data = value; top->link = newnode;

✓ Incorrect

Correct

The correct answers are: newnode->data = value; newnode->link = top; top = newnode;; newnode->data = value; newnode->link = top; top = newnode;

Question 16

Correct

Mark 2.00 out of 2.00

Given the following sequence of letters and asterisks: BAL*A*GUR***US***AM*Y*** (a) Consider the [stack](#) data structure, supporting two operations push and pop. Suppose that for the above sequence, each letter (such as B) corresponds to a push of that letter onto the [stack](#) and each asterisk (*) corresponds a pop operation on the [stack](#). Show the sequence of values returned by the pop operations. (b) Consider the queue data structure, supporting two operations insert and delete. Suppose that for the above sequence, each letter (such as B) corresponds to an insert of that letter into the queue and each asterisk (*) corresponds a delete operation on the queue. Show the sequence of values returned by the delete operations.

Select one:

- ☐ 1. None
- ☐ 2. SAMYBALAGURU & GURUSAMYBALA
- ☒ 3. YMASURUGALAB & BALAGURUSAMY
- ☐ 4. BALAGURUSAMY & YMASURUGALAB



The correct answer is: YMASURUGALAB & BALAGURUSAMY

Question 17

Complete

Not graded

Which among the given below is not an application of [stack](#)?

Select one:

- ☐ 1. undo redo operation
- ☐ 2. Recursion
- ☐ 3. Back-tracking
- ☒ 4. Job Scheduling

Correct

Correct

The correct answer is: Job Scheduling

[◀ LinkedListQuiz](#)[BST ▶](#)