

Started on Monday, 7 March 2022, 2:43 PM**State** Finished**Completed on** Monday, 7 March 2022, 2:53 PM**Time taken** 10 mins 1 sec

Assume you are implementing two stacks using an array of size N , initially, top of stack-1 is $T1$ points to index-0, top of stack-2 is $T2$ points to index- $(N-1)$. Each time you are adding one element to both the stacks, what is the condition to say "stack is full" and the array space is to be used effectively.

Select one:

- ☐ a. $T1 = T2 - 1$
- ☐ b. $T1 + T2 = N$
- ☒ c. $(T1 = N/2)$ and $(T2 = N/2 + 1)$
- ☐ d. $(T1 = N/2)$ or $(T2 = N)$

Consider the following sequence of operations on an empty stack.

`push(1054);``push(5020);``pop();``push(2535);``push(1620);``s=pop();`

Consider the following sequence of operations on an empty queue.

`enqueue(3213);``enqueue(2234);``dequeue();``enqueue(5282);``enqueue(3332);``q=dequeue();`

The value of $s+q$ is _____.

Select one:

- ☒ a. 3854
- ☐ b. 4952
- ☐ c. 6902
- ☐ d. 4833

Convert the given infix expression to postfix expression

$$m^n/(3*t)+6$$

Select one:

- ☐ a. $B * / m n ^ 5 t + 6$
- ☐ b. $* / + m n t ^ 3 6$
- ☒ c. $m n ^ 3 t * / 6 +$
- ☐ d. $m n ^ 3 z * / 6 +$

Three elements P, Q, R pushed into Stack-A in the following order, R, Q, P. There is another Stack-B. You can pop an element E from Stack-A, you can display E or push E to Stack-B. You can pop an element F from Stack-B, you can only display F. By following these terms, which of the following permutation of P,Q,R is not possible?

Select one:

- ☐ a. PQR
- ☐ b. QPR
- ☐ c. RPQ
- ☐ d. QRP

Convert the given infix expression to prefix

$$(3*5^2/15)-(5-2^2)$$

Select one:

- ☐ a. $- / * 3 ^ 5 2 15 - 5 ^ 2 2$
- ☐ b. $- - / * 3 ^ 5 2 15 5 ^ 2 2$
- ☐ c. $- / * 3 5 2 15 - 5 ^ 2 ^ 2$
- ☒ d. $- * / - 3 5 2 15 ^ 5 ^ 2 2$