1. Convert the given infix expression to postfix expression
$m^n/(3*t)+6$
A. m n ^ 3 z * / 6 +
B. * $/ m n ^ 5 t + 6$
C. m n ^ 3 t * / 6 +
D. * / + m n t ^ 3 6
Answer: C
2. Convert the given infix expression to prefix
(3*5^2/15)-(5-2^2)
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/*3^5215-5^22
Answer: D
3. 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

```
A. 3854
B. 4833
```

C. 6902

D. 4952

Answer: A

Explanation: Let's construct an empty stack and do the operations. Stack follows LIFO order.

```
1.Push(1054) // (1054)
```

s=1620;

Let's construct an empty queue and do the operations. Queue follows FIFO order.

```
1.Enqueue(3213) // [3213]
```

6.q=Dequeue() // [5282, 3332]

q=2234;

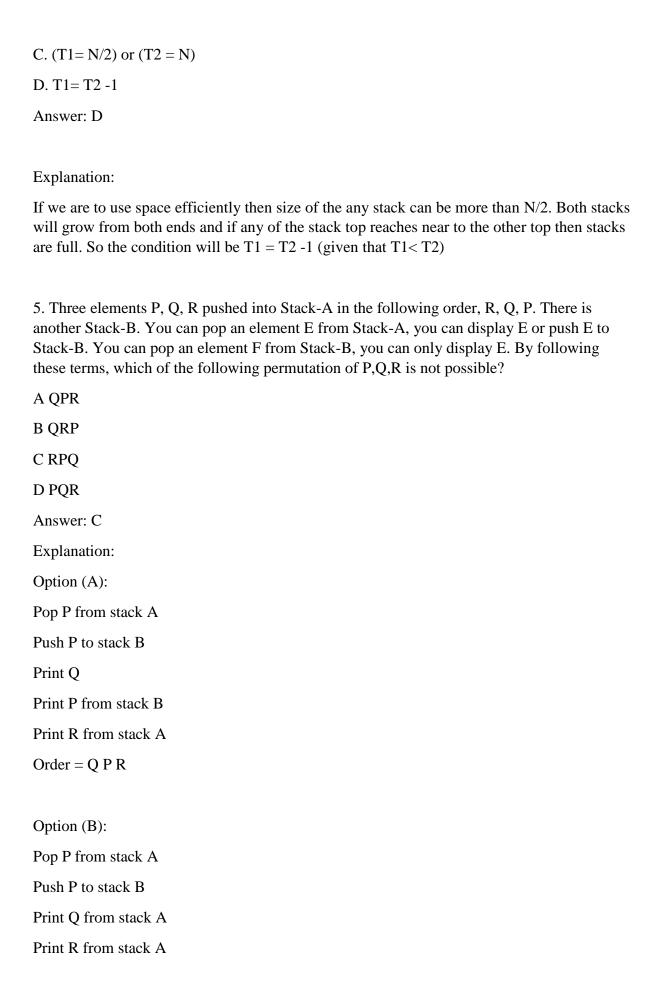
$$s+q=1620+2234$$

So,
$$s+q=3854$$
.

4. 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.

A.
$$(T1 = N/2)$$
 and $(T2 = N/2+1)$

B.
$$T1 + T2 = N$$



Print P from stack A

Order = Q R P

Option (C):

Pop P from stack A

Push P to stack B

Pop Q from stack A

Push Q to stack B

Print R from stack A

Now, printing a will not be possible.