

Set: A

```
def add_arrays(n, A, B):
    min_heap = MinHeap()

    for i in range(0, n):
        min_heap.insert(A[i])

    for i in range(0, n):
        x = min_heap.extract()
        min_heap.insert(x+B[i])

    For i in range(0, n):
        A[i] = min_heap.extract()

    return A
```

Set : B

```
def sub_arrays(n, A, B):
    max_heap = MaxHeap()

    for i in range(0, n):
        max_heap.insert(A[i])

    for i in range(0, n):
        x = max_heap.extract()
        max_heap.insert(x-B[i])

    For i in range(0, n):
        A[i] = max_heap.extract()

    return A
```

Marking Rubric:

- 1) Declaring appropriate heap - 2 marks
- 2) Inserting elements of A in the heap - 4 marks
- 3) Adding/ Subtracting elements of B - 4 marks
- 4) Taking the sorted elements into A - 4 marks
- 5) Returning array A - 1 marks