Set D Part 1

allot_seat(A, n, c_id)

//find position of last element in the array A

1. max = -1
2. last = -1
3. **for** i ← 0 to n-1 **do**
   if A[i] > max
   then last ← i
   max = A[i]

//calculate next position to insert the new element

4. next ← (last + 1) % n
   //insert c_id in next position
5. A[next] ← c_id
6. print *next* in new line

Evaluation criteria : **[4 marks]**	
Division:	Finding the next position to insert - 2 marks
	Calculating next position in circular manner - 2 Marks

call_for_interview(A, n)

//find position of smallest element in the array A

1. first ← 0
2. **for** i ← 1 to n-1 **do**
   if A[i] < A[first]
   then first ← i

//delete the element at position first

3. A[first] ← -1
4. print *first* in new line

Evaluation criteria : **[3 marks]**	
Division:	Finding the position to delete - 2 marks
	Deletion - 1 Mark

Set D Part 2

allot_seat(A, B, n, c_id, rank)

//find the first empty position

1. **for** i ← 0 to n-1 **do**
   if A[i] = -1
   then break

//insert c_id and rank at position i

2. A[i] ← c_id
3. B[i] ← rank
4. print *i* in new line

call_for_interview(A, B, n)

//find position of highest rank in the array B

1. high ← 0
2. **for** i ← 1 to n-1 **do**
   if B[i] > B[high]
   then high ← i
   //if ranks are same, select the position of smaller value in A
   else if B[i] = B[high]
   then if A[i] < A[high]
   then high ← i

//delete the element at position i

3. A[i] ← -1
4. B[i] ← -1
5. print *newline*; print *i*;

update_rank(A, B, c_id, r)

//find the position of c_id in A

1. **for** i ← 0 to n-1 **do**
   if A[i] = c_id
   then break

//update the rank in B at position i

2. B[i] ← r

Array_Empty(A)

1. **for** i ← 0 to n-1 **do**
   if A[i] ≠ -1
   then return 0
2. **return** 1

sort_candidates()

//repeatedly call_for_interview(A, B, n) until array is empty

1. **while** *Array_Empty(A)* ≠ 1
   do *call_for_interview(A, B, n)*

print_candidates(A, B, n)

1. **for** i ← 0 to n-1 **do**
   if A[i] = -1
   then print *newline*; print -1;
   else print *newline*; print A[i]; print ' '; print B[i];

Evaluation criteria : **[3 marks]** Division: ***sort_candidates()*** function using ***call_for_interview()*** - 1 mark Other four functions - 2 Marks (0.5 each)