National University of Computer and Emerging Sciences, Lahore Campus

	Course:	**Design and Analysis of Algorithms**	**Course Code:**	CS302
	Program:	BS(Computer Science)	**Semester:**	**Spring 2018**
	Duration:	**10 Minutes**	**Total Marks:**	**10**
	Paper Date:	20-Feb-18	**Weight**	3
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	Exam:	**Quiz 2(b)**	**Section:**	

Below is the code for Bubble sort. Draw the decision tree of Bubble sort when sorting 3 elements

```
BubbleSort(A,n)
{
      for(i=1 to n-1){

            for(j= 1 to n-i){
                  if(A[j+1]<A[j])
                        swap(A[j],A[j+1])
            }

}
}
```

Let V1, V2 and V3 be the initial unsorted elements, the decision tree would be