

## DATA STRUCTURES AND ALGORITHMS

### WEEK ONE LABS

#### GROUP 3

1)

i)

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    char a,b,c,d;
```

```
    a=300;
```

```
    b=-2;
```

```
    c=+200;
```

```
    d=-150;
```

```
    return 0;
```

```
}
```

**Overflow for char a**

**Overflow for c**

**Underflow for d**

**b is correct**

ii)

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{  
    short a,b,c,d;  
    a=72550;  
    b=-3;  
    c=+42255;  
    d=35450;  
    return 0;  
}
```

**Overflow a**

**Overflow c**

**Underflow d**

**b is correct**

iii)

```
#include<iostream>  
using namespace std;
```

```
    int a,b,c,d;  
    a=5000000000;  
    b=-2;  
    c=+5447483645;  
    d=-3500000000;  
    return 0;  
}
```

**Overflow a**

**Overflow c**

**Underflow d**

**b is correct**

2)

Output

5

10

2

4

6

8

10

**Printarray displays firstarray,2 as element 5 and 10**

**first array contain elements 5, 10 and 15 but output 5 and 10**

**In the first array we initialized 3 elements but the code access only the first 2**

**In the second array we initialized 5 elements and the code accesses all the 5**