## Instructions:

- Close book
- Searching on the internet is not allowed
- Write your output under the question

## Part 1 (15 points/30 minutes)

1. [3 points] Write the output of below code:

```
console.log('A'>'a')
console.log('1' = 1)
console.log(true < false)
</pre>
```

2. [4 points] Write the output of the below code:

```
function twoNumber(num1, num2) {
 1
 2
          let result
 3
          if (num1 < num2) {</pre>
 4
              result = 'true';
 5
          } else {
              result = 'false';
 6
 7
 8
          return result;
 9
10
      if(twoNumber(90,50)){
11
12
          console.log('num1 > num2')
13
      }else{
        console.log('num1 < num2')</pre>
14
15
```

3. [4 points] Write the output of the below code:

```
let arr1 = [1,2,3,4]
1
2
     let arr2 = [5,6,7]
3
4
     arr2.push(arr1[0])
5
     arr1.push(arr2[0])
6
     arr1.splice(0,1)
7
     arr2.splice(0,1)
8
     arr2.push(arr1[0])
     arr1.push(arr2[0])
9
     arr1.splice(0,1)
10
     arr2.splice(0,1)
11
12
13
     console.log(arr1)
14
     console.log(arr2)
15
```

4. [4 points] Write the output of the below code:

```
let i = 0 ;
     let output = ""
2
3
     while(i<28){</pre>
         if(i==0 || i ==6 || i==7 || i==10 || i==13 || i==14 || i==17 || i==20 || (i>20 && i<24) || i>24){
4
5
             output += 'o'
6
         }else{
             output += 'x'
7
8
         if(i==6 || i==13 || i==20 || i==27 ){
9
             output += '\n'
10
11
12
         i++ ;
13
14
     console.log(output)
15
```