Std 10 The Brigade School Revision worksheet 3 (2020-21)

Total points 33/40

STD 10 Computer Applications

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- (●) TBSG
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Part A(Marks: 10)

✓ Question 1 (a) If an index of an element is N, what is its actual position in the array? * 2/2

- ○ N
- ○ N-1
- ◉ N+1 ✓
- ○ N+2

Feedback

char[] c = new char[5];

Question 1 (b) What are the values in a after multAll(3) executes?

```
int[ ] a = {1, 3, -5, -2};

public void multAll(int amt)
{
  int i = 0;
  while (i < a.length)
  {
    a[i] = a[i] * amt;
    i++;
  }
}
```

✓ Question 1 (b) * 2/2

- ○ {1, 3, -5, -2}
- ◉ {3, 9, -15, -6} ✓
- ○ {2, 6, -10, -4}
- ○ The code will never stop executing due to an infinite loop

Question 1 (c)What is the output of the below Java program?

```
public class Polo {
  public static void main(String args[])
  {
    String[] computer = {"RAM","HDD","MOUSE"};
    String[] parts = {computer[0],computer[2]};
    System.out.print(parts[1]);
  }
}
```

✗ Question 1 (c) * 0/2

- (●) RAM ✗
- ( ) HDD
- ( ) MOUSE
- ( ) ERROR

Correct answer

- (●) MOUSE

✓ Question 2 (a) Linear Search is useful when the array is unsorted. * 2/2

- (●) TRUE ✓
- ( ) FALSE

Question 2 (b) What is the output of the below Java program?

```
int ages[3] = {25, 27, 30};
System.out.println(ages[1]);
```

✗ Question 2 (b) * 0/2

- ○ 25
- ◉ 27 ✗
- ○ 30
- ○ ERROR

Correct answer

- ◉ ERROR

Part B(Marks: 30)

✗ Question 3: Write a program to print the prime numbers in a given array. * 12/15

```
import java.util.*;
class prime
{
   public static void main(String args[])
   {
      Scanner sc = new Scanner(System.in);
      int i,j, p;
      int arr[] = new int[10];
      System.out.println("Enter array elements:");
      for (i = 0; i < 10; i++)
      {
         arr[i] = sc.nextInt();
      }
      System.out.println("All prime numbers are:");

      for (i = 0; i < 10; i++)
      {
         j = 2;
         p = 1;
         while (j < arr[i])
         {
            if (arr[i] % j == 0)
            {
               p = 0;
               break;
            }
            j++;
         }
         if (p == 1)
         {
            System.out.print(" " + arr[i]);
         }
      }

   }
}
```

VARIABLE DESCRIPTION TABLE

Variable's Name -- Datatype -- Description
arr[] -- int -- SDA to store 10 elements
i -- int -- Loop variable
j -- int -- Loop Variable
p -- int -- Variable that helps to find the prime numbers.

✓ Question 4: Write a program to sort and print the elements of an array in descending order. * 15/15

```
import java.util.Scanner;
public class Descending_Order
{
   public static void main(String args[])
   {
      int  temp;
      Scanner s = new Scanner(System.in);
      int a[] = new int[10];
      System.out.println("Enter all the elements:");
      for (int i = 0; i < 10; i++)
      {
         a[i] = s.nextInt();
      }
      for (int i = 0; i < 10; i++)
      {
         for (int j = i + 1; j < 10; j++)
         {
            if (a[i] < a[j])
            {
               temp = a[i];
               a[i] = a[j];
               a[j] = temp;
            }
         }
      }
      System.out.print("Descending Order:");
      for (int i = 0; i < a.length - 1; i++)
      {
         System.out.print(a[i] + ",");
      }
      System.out.print(a[10 - 1]);
   }
}
```

VARIABLE DESCRIPTION TABLE

Variable's Name -- Datatype -- Description
a[] -- int -- SDA to store 10 elements
i -- int -- Loop variable
j -- int -- Loop Variable
temp -- int -- Helps to sort the array.