Assignment 10

Ans 1.Default value of array for different datatypes:

Datatype	default value
Int	0
String	null
Double	0.0
Boolean	false

Ans 2. No, you cannot use a negative integer as size, the size of an array represents the number of elements in it, –ve number of elements in an array makes no sense

Ans 3. The reference types in Java are stored in heap area. So,arrays are reference types (we can create them using the new keyword) these are also stored in heap area.

Ans 4.Disadvantages of Array:

Fixed size: Arrays have a fixed size that is determined at the time of creation.

Memory allocation issues: Allocating a large array can be problematic, particularly in systems with limited memory.

Wasted space: If an array is not fully populated, there can be wasted space in the memory allocated for the array.

Ans 5. Anonymous array: The arrays without name is known as Anonymous array. These are created just for the instance use.

For example:

```java
class calc{
    public int add(int ar[])
    {
        int result=0;
        for(int a:ar)
        {

        result=result +a;
        }
        return result;
    }
}
public class first
{
```

```java
    public static void main(String[]arg)
   {

     calc obj=new calc();
     int num[]={5,3,2};
     int result=obj.add(num);
     System.out.println(result);
   }
}
```

Output:

10

Ans 6.Array can be travesed using:

Using the for loop − Instead on printing element by element,we can iterate the index using for loop starting from 0 to length of the array (ArrayName.length) and access elements at each index.

Using the for inhanced loop − It enables us to traverse the complete array sequentially without using an index variable. We can traverse through the array with less effort using this.

Ans 7. **The length** variable is applicable to an array but not for string objects, as it is the property of the array type class.

Whereas **the length()** method is applicable for string objects but not for arrays, as it is the method of String class.

For example:

```java
public class first
{
    public static void main(String[]arg)
    {
        int nums[]={1,2,3,4};
        System.out.println(nums.length);
        String name ="ram";
        System.out.println(name.length());
    }
}
```

Output:

4

3