Question 1:
```
string []:five element addd

copy another array

shallow copy
deep copy
```

Code:
```java
public class  Array {
   static void display(String name  []) {
       for (int i = 0; i < name.length; i++) {
           System.out.println(name[i] + "");
       }
       System.out.println("----------------");
   }

   public static void main(String[] args) {
       String name1 []={"ravi" , "rahul ","hari","ravish","jain"};
       String name2[]=name1;
       //copy array
       display(name1);
       display(name2);
       //shallow copy
       System.out.println("----------------------");
       name1[0]="rakesh";
       name2[2]="ramesh";
       display(name1);
       display(name2);
       //deep copy
       System.out.println("----------------");
       String name3 []={"ravi" , "rahul ","hari","ravish","jain"};
       String name4[]=name3.clone();
       name3[0]="rakesh";
       name4[2]="ramesh";
       display(name3);
       display(name4);


   }
}
```

Output:
```
ravi
rahul
hari
ravish
jain
----------------
```

ravi
rahul
hari
ravish
jain

----
rakesh
rahul
ramesh
ravish
jain
----
rakesh
rahul
ramesh
ravish
jain

----
rakesh
rahul
hari
ravish
jain
----
ravi
rahul
ramesh
ravish
jain

Question 2:

```
int a[]
b[]=a
c[]=b
d[]=c
e[]=d
```

```
shallow copy and deep copy
Code :
```

```java
public class  Array {
    static void display(int a []) {
        for (int i = 0; i < a.length; i++) {
            System.out.print(a[i] + "");
        }
        System.out.println("");
    }
```

```java
    public static void main(String[] args) {
        //shallow copy
        int a []={1,2,3,4,5};
        int b[]=a;
        int c[]=b;
        int d[]= c;
        int e[]=d;
        display( a);
        display( b);
        display(c);
        display(d);
        display(e);
        //deep copy
        System.out.println("----------------");
        int a1[]={1,2,3,4,5};
        int b1[]=a1.clone();
        int c1[]=b1.clone();
        int d1[]= c1.clone();
        int e1[]=d1.clone();
        display(a1);
        display(b1);
        display(c1);
        display(d1);
        display(e1);


    }
}
```

Output:
12345
12345
12345
12345
12345

12345
12345
12345
12345
12345

Question 3:
a changes
a b c d e
shallow copy and deep copy

Code:
```java
public class  Array {
   static void display(int a []) {
      for (int i = 0; i < a.length; i++) {
          System.out.print(a[i] + "");
```

```java
        }
        System.out.println("");
    }

    public static void main(String[] args) {
        // shallow copy
        int a []={1,2,3,4,5};
        int b[]=a;
        int c[]=b;
        int d[]= c;
        int e[]=d;
        System.out.println("----------------------");
        a[0]=12;
        a[2]=14;
        display( a);
        display( b);
        display(c);
        display(d);
        display(e);
        //deep copy
        System.out.println("---------------");
        int a1[]={1,2,3,4,5};
        int b1[]=a1.clone();
        int c1[]=b1.clone();
        int d1[]= c1.clone();
        int e1[]=d1.clone();
        a1[0]=23;
        a1[2]=22;
        display(a1);
        display(b1);
        display(c1);
        display(d1);
        display(e1);


    }
}
```

Output:
1221445
1221445
1221445
1221445
1221445

2322245
12345
12345
12345
12345

Question 4:

a no change
b no change
c change

a,b,c,d,e effect
shallow copy and deep copy
Code

```java
public class  Array {
   static void display(int a []) {
       for (int i = 0; i < a.length; i++) {
           System.out.print(a[i] + "");
       }
       System.out.println("");
   }

   public static void main(String[] args) {
       int a []={1,2,3,4,5};
       int b[]=a;
       int c[]=b;
       int d[]= c;
       int e[]=d;
       //shallow copy
       System.out.println("----------------------");
     c[0]=12;
     c[2]=14;
       display( a);
       display( b);
       display(c);
       display(d);
       display(e);
       //deep copy
       System.out.println("---------------");
       int a1[]={1,2,3,4,5};
       int b1[]=a1.clone();
       int c1[]=b1.clone();
       int d1[]= c1.clone();
       int e1[]=d1.clone();
       c1[0]=23;
       c1[2]=22;
       display(a1);
       display(b1);
       display(c1);
       display(d1);
       display(e1);


   }
}
```

Output:
1221445
1221445
1221445
1221445
1221445

12345
12345
2322245
12345
12345

Question 5:
a no change
b no change
c no change
d no change
e change

a,b,c,d,e effect
shallow copy and deep copy

Code:

```java
public class  Array {
   static void display(int a []) {
      for (int i = 0; i < a.length; i++) {
          System.out.print(a[i] + "");
      }
      System.out.println("");
   }


  public static void main(String[] args) {
      // shallow copy
      int a []={1,2,3,4,5};
      int b[]=a;
      int c[]=b;
      int d[]= c;
      int e[]=d;
      System.out.println("-----------------------");
      e[0]=12;
      e[2]=14;
      display( a);
      display( b);
      display(c);
      display(d);
      display(e);
      //deep copy
      System.out.println("----------------");
```

```java
        int a1[]={1,2,3,4,5};
        int b1[]=a1.clone();
        int c1[]=b1.clone();
        int d1[]= c1.clone();
        int e1[]=d1.clone();
        e1[0]=23;
        e1[2]=22;
        display(a1);
        display(b1);
        display(c1);
        display(d1);
        display(e1);

    }
}
```

Output:
1221445
1221445
1221445
1221445
1221445

12345
12345
12345
12345
2322245