Assignment – 17

1. WAP to create a HashSet with Integer objects without using generics
2. WAP to create a HashSet with some colors (String) using generics
3. WAP to create a HashSet from an ArrayList ?
4. Difference between hashset and linkedhashset?
5. State true or false.
   a. Hashtable is synchronized.
   b. Treeset maintains insertion order.
   c. Linked hashset can contain multiple null values.
6. Hashset internally use hashmap?explain working of add method in hashset.
7. Show any 4 methods in treeset which are not there in hashset.
8. Hashset contains string of names of 7 days of week. Remove “Saturday” “Sunday” from the set.
9. There is Arraylist of objects. All objects at even position are baller objects and all objects at odd position are batsman object. Create 2 sets such that one set contains all baller objects and another set contains all batsman objects. List size is always even.
10. There are 2 different arraylist , both contain student objects. But there are students present in both lists. Create a set which contains student objects from both lists. Ensure that no student objects are repeated.
11. What will be output of following. [1m]

```
public class Output2 {

public static void main(String[] args)

{

HashSet<String> hashSet = new HashSet<>();

hashSet.add("Rose");

hashSet.add("Lotus");

hashSet.add("Lavender");
```

```
Iterator itr=hashSet.iterator();

hashSet.add("Tulip");

while(itr.hasNext()) {

System.out.println(itr.next());

} } }
```

12. There is a HashSet which has student objects. Create two arraylists from this hashset. In one arraylist called 'placedStudents' insert all students who have been placed and in another arraylist 'unplacedStudents'
    Student class - Fields studid, Name, Qualification, yearOfpassing, placed(true/false)
13. Consider there is already a TreeSet<Integer>created with elements. Write a function which will take input as a number or hardcode the number. If input number is present in Set then return the number which is present 2 locations after the matching number.
    E.g. set { 14, 15,63,78,96,100, 112} . I/p 78 then return 100. If 100 is passed it will return null as there is no element 2 locations after it.
14. Convert array of Float to LinkedHashSet of Float without any Collections readymade method such that reverse elements are stored in linkedhashset e.g. 23.4,23.2 in array then set will have 23.2 and 23.4

15. WAP wherein Set<Emp> always single element is present irrespective of how many Emp objects are being added
16. WAP to get the element in a TreeSet which is greater than or equal to the given element.
17. WAP to get the element in a TreeSet which is less than or equal to the given element.
18. WAP to get the element in a TreeSet which is strictly greater than or equal to the given element.
19. WAP to get an element in a TreeSet which is strictly less than the given element.