Java Collection-2

Q 1 :Why and when we use set ?
Ans :If you don't want duplicates and ordered data , use Set .

Q 2: List ,Set and Map which of them do not inherit collection framework ?
Ans : Map .

Q 3 :Define difference between ArrayList and Linklist ?
Ans :

ArrayList	LinkedList
1) ArrayList internally uses dynamic array to store the elements.	LinkedList internally uses doubly linked list to store the elements.
2) Manipulation with ArrayList is slow because it internally uses array. If any element is removed from the array, all the bits are shifted in memory.	Manipulation with LinkedList is faster than ArrayList because it uses doubly linked list so no bit shifting is required in memory.
3) ArrayList class can act as a list only because it implements List only.	LinkedList class can act as a list and queue both because it implements List and Deque interfaces.
4) ArrayList is better for storing and accessing data.	LinkedList is better for manipulating data.

Source :https://www.javatpoint.com/difference-between-arraylist-and-linkedlist

Q 4 : How many constructor are for ArrayList ?
Ans : 3 ,
1)ArrayList( ) ,
2)ArrayList(Collection c) ,
3)ArrayList(int capacity)

Q 5: Define difference between collection and collections;
Ans : Collection is a base interface for most collection classes, whereas Collections is a utility class

Q 6: What is collision in Collection?
Ans : If there are chances that the hashFunction returns same index for 2 different keys. This is what we call a collision.
Source : https://www.quora.com/How-is-collision-handled-in-HashMap

Q 7:How much method has forMap.entry interface ?
Ans : 2 , get.key() and get.value .

Q 8:What is the formula of capacity increase for ArrayList ?
Ans : new_capasity = X*(3/2)

Q 9: How you convert ArrayLists' access as read only ?

Ans :Pass the `ArrayList` into `Collections.unmodifiableList()`. It returns an unmodifiable view of the specified list

Q 10 :Define Initial capasity of hashmap and loadfactor .
Ans :
source :http://javaconceptoftheday.com/initial-capacity-and-load-factor-of-hashmap-in-java/

Q 11:Which methods you need to override to use any object as key in HashMap ?
Ans :To use any object as key in HashMap , it needs to implement equals() and hashCode() method .
Q 12: How do we convert a arraylist as Synchronized ?
Ans :Using Collections.synchronizedList() method

1. Using thread-safe variant of ArrayList: CopyOnWriteArrayList

Q 13 : Define difference between HashMap and HashTable ?
Ans :

HashMap	Hashtable
1) HashMap is non synchronized. It is not-thread safe and can't be shared between many threads without proper synchronization code.	Hashtable is synchronized. It is thread-safe and can be shared with many threads.
2) HashMap allows one null key and multiple null values.	Hashtable doesn't allow any null key or value.
3) HashMap is a new class introduced in JDK 1.2.	Hashtable is a legacy class.
4) HashMap is fast.	Hashtable is slow.
5) We can make the HashMap as synchronized by calling this code Map m = Collections.synchronizedMap(hashMap);	Hashtable is internally synchronized and can't be unsynchronized.
6) HashMap is traversed by Iterator.	Hashtable is traversed by Enumerator and Iterator.
7) Iterator in HashMap is fail-fast.	Enumerator in Hashtable is not fail-fast.
8) HashMap inherits AbstractMap class.	Hashtable inherits Dictionary class.

Source : https://www.javatpoint.com/difference-between-hashmap-and-hashtable

Q 14 : How we use set operation using collection ?
Ans :

oparation	= code
Union	= s1.addAll(s2)
intersection	= s1.retainAll(s2)
subtraction	= s1.removwAll(s2)
subSet	= s1.containAll(s2)