1   Which of the following methods of Queue interface retrieves but does not remove the head element.

A   peek()

B   element()

C   both

D   none

2.   Which of the following implementation classes store key,value pairs.

A   ArrayList

B   Vector

C   HashSet

D   HashMap

3

Which of these support duplicate elements

A   List

B   Set

C   HashMap

D   HashSet

4

Given the following,
12. TreeSet set = new TreeSet();
13.set.add("one");
14. set.add("two");
15. set.add("three");
16. set.add("four");
17. set.add("one");
18. Iterator it = map.iterator();
19. while (it.hasNext()) {

20. System.out.print(it.next() + " ");
21. }
what is the result?
A. one two three four
B. four three two one
C. four one three two
D. one two three four one
E. one four three two one
F. The print order is not guaranteed

5

In the code:

```
ArrayList<int> al=new ArrayList<int>();
al.add(12);
System.out.println(12);
```

a) prints 12

b) compile time error

c) when <int> is removed compiles fine

d) b and c are right

6

. Which of the following methods are not defined in class Thread?
A. start()
B. wait()
C. notify()
D. run()
E. equals()

7

Thread is a mutable object.

True

False

8

Given the following,
1. class MyThread extends Thread {
2.
3. public static void main(String [] args) {
4. MyThread t = new MyThread();
5. t.start();
6. System.out.print("one. ");
7. t.start();
8. System.out.print("two. ");
9. }
10.
11. public void run() {
12. System.out.print("Thread ");
13. }
14. }
what is the result of this code?
A. Compilation fails
B. An exception occurs at runtime.
C. Thread one. Thread two.
D. The output cannot be determined.

9

Which three are *true*?

A. A static method can be synchronized.
B. If a class has synchronized code, multiple threads can still access the nonsynchronized code.
C. methods can be protected from concurrent access problems by marking them with the synchronized keyword.
D. When a thread sleeps, it releases its locks.
E. When a thread invokes wait(), it takes its locks.

10

Which of the following methods throw Checked Exception

1. sleep
2. wait
3. notify
4. start

11

wait() method is overloaded.(True/False.)

12

Which of the following classes do you instantiate if want to get information about whether a file exists or not.

A   FileWriter

B   FileReader

C   File

D   All the above

13

Writing to a file always throws FileNotFoundException
         True/False

14

_____ and _____ methods are used to write an object to a file

15

_____ is the process to breaking an object to bits and bytes before writing to a file or a socket.

16

Mark whether the following statements are true or false.   7 marks

A   Thread can be created by extending from Thread class or Runnable interface.

B   public void run() method is declared in Runnable interface

C   Collections can be used to store primitive values.

D   Generics in collections was introduced in 1.5 version of java.

E   IOException is unchecked exception

F   FileWriter when instantiated creates a file if file is not existing.

G   Methods defined in a class are thread safe by default.

18

What are the different ways of printing the content of an arraylist.

3 marks

19

Which are the different stages of Thread in its lifecycle .Which are the methods used

5 marks