1. Write the differences between nested classes and inner classes with minimum five differences.

2. List the advantages of packages.

3. List any 10 interfaces or classes of java.i package.

2 Any: Advantages of using packages. (Pg: 126-127)

1. They help in organizing classes into unit.

   Ex: like computer hard disk contains folders or directories to organize files and applications.

2. Packages allow programmers to 'hide' classes so that conflicts can be avoided.
   Conflicts like: same class name repeatation and unwanted errors.

3. Packages provide protection to variables, methods and classes in finer ways than can be done on a class-by-class basis.

4. Packages can be used to identify classes.

5. When proper naming conventions are adopted packages can be used to

identify the programmer/organization.

6. Packages provide a high-
level layer of access protec-
-tion and name space
management.

> Package:
> Collection of
> classes.

③ java.io. (214, 218)
classes:

Interfaces

- Input Stream.
- OutputStream ⎫⎬⎭

classes are operated
on bytes for reading
and writing resp.

- Reader ⎫ operates
- Writer ⎬ on 'characters'

- File class.
  - RandomAccessFile class ⎫⎬⎭
    usefull for
    handling i/o.

- PrintStream.

- StringBuffer InputStream.

- SequenceInputStream

- BufferedInputStream

- BufferedOutputStream.

Nested classes   Inner classes.

Nested classes	Inner classes
1. A nested class is any class defined inside another class.	1. An inner class is a non-static nested class.
2. There are 2 types of nested classes: 　1. static 　2. Non-static	2. Inner classes are always non-static.
3. A static nested class cannot access instance members of the outer class directly.	3. An inner class can access all members of the outer class directly.
4. A static nested class declared with the static modifier.	4. All Inner classes are nested classes but not all nested classes are inner class.