1.

Abstract class	interfaces
The class can inherit only one abstract class.	The class can implement more than one interfaces
Java abstract classes are comparatively efficient.	The interfaces are comparatively slow and implies extra level of indirection.
Java abstract class is extended using the keyword extends.	Java interface can be implemented by using the keyword implements.
The member variable of abstract class can be non-final.	The member variable of interface are by default final.

2. Finalize() Method: (Pg: 2-40)

Syntax:

```
void finalize()
{
  finalization code
}
```

Java has a facility of automatic garbage collection. Hence even though we allocate the memory and then forget to deallocate it

then the object that are no longer is used get freed.

Inside the finalize() method you will specify those actions that must be performed before an object is destroyed.

3. (Pg: 2-27)

Overloading	Overriding
The method overloading occurs at compile time.	The method overriding occurs at run time (or) execution time.
Method overloading is performed within a class	Method overriding is normally performed b/w two classes that have inheritance relationship.
The overloading function may have different return types	In method overriding all the methods will have the same return type

4. CLASSPATH: (Pg: 2-68 (Q.22))

The packages are nothing but the directories. For locating the specified package the java run time system make use of current working directory as its starting point. This directory path is called CLASSPATH.

5. Use of Super Keyword: (Pg: 2-65)

The super class is used to access immediate parent class from the subclass. It is used to

access parent's variable
access parent's method
" " constructor invocation.

6. Condition for method overriding:

If a class has multiple methods having same name but parameters of the method should be different.

If we have to perform only one operation, having same name of method increase the readability of the program.

7. Packages: (Pg: 2-67)

Package represent a collection of classes, methods and interfaces. The name of the packages must be written as the first statement in java source program. The syntax:

Package name_of_Package;

8. Uses of Packages: (Pg: 2-68)

The classes defined in the package of other program can be easily reused.

Two classes from two different Packages can have the same name.

By using the Package name the particular class can be referred.

9. Exception: (Pg: 3-49)

Exception is a mechanism which is used for handling unusual situation that may occurs in the program.

Eg: Arithmetic Exception: This exception is used to handle arithmetic exceptions such as divide by zero.

10. Java supports multiple inheritance, throw interface:

Java does not support multiple inheritance because it creates ambiguity when the properties from both the parent classes are inherited in child class or derived class. But it is supported in case of interface because there is no ambiguity as implementation is provided by the implementation class.

Variables in interface static and final: (Pg: 2-69)

The member of interface are static and final because

i.) The reason for being static - The members of interface belong to interface only and not object.

ii.) The reason for being final - Any implementation can change value of fields if they are not defined as final. Then those members would become part of the implementation. An interface is pure specification without any implementation.

12. (Pg: 3-49)

Error	Exception
Error are mainly caused by the enviroment in which an application is running.	Exception are mainly caused by the application itself.
Eg: Out of memory error happens there is shortage of memory.	Eg: Null pointer exception occurs when an application tries to access null object.

13. (Pg- 3-12)

Throw	Throws
Throw is followed by instance.	Throws is followed by exception class.
Throw is used within the method.	Throws is used with method signature.

We cannot throw multiple exceptions.	It is possible to declare multiple exception using throws.

For explicity throwing the exception, the keyword throw is used.	Syntax:
	method_name(Parameter_List)
	throws exception_list
	{
	}

14. Run time exception: (Pg:- 3-50)

Runtime exception is the superclass of those exceptions that can be thrown during the normal operation of the Java virtual machine. Runtime exception is the parent class in all exception of Java.

15. Various keyword in exception: (Pg: 3-4)

Try
catch
finally
throw
throws

16. Thread in Java:

Thread is tiny program running continuously

It is a light weight process in java. (Pg: 3-51)

17. Different stages in thread: (Pg: 3-51)

New state
Runnable state
waiting state
Time waiting state
Blocked state
Terminated state.

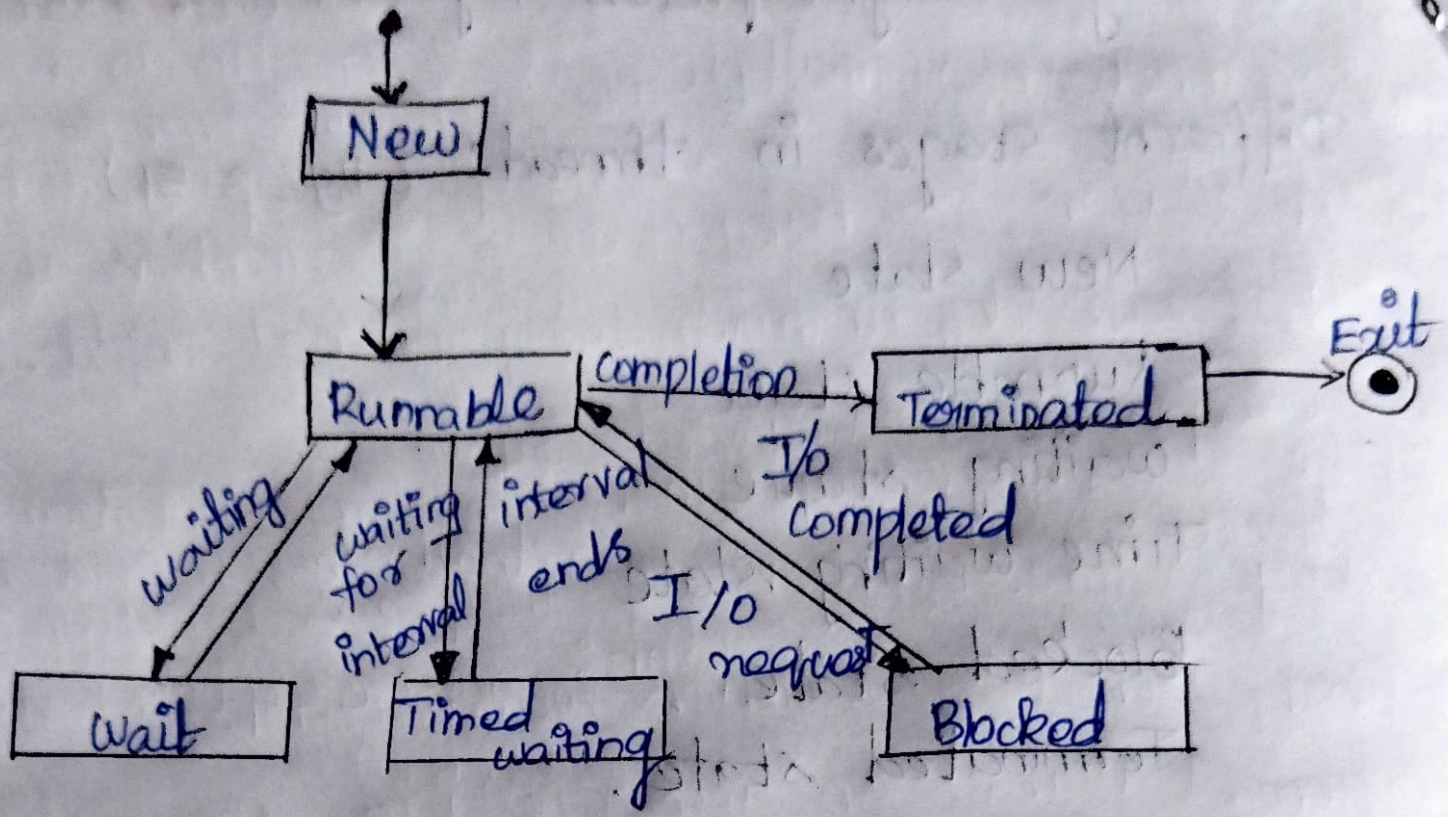
18. Multithreading: (Pg: 3-52)

Multithreading is an environment in which multiple threads are created and they can execute simultaneously. The multiple thread can be created either by extending the thread class or by implementing the runnable interface

19. Comment - (Pg: 3-53)

Threads do not require separate address for its execution. It runs in the address space of the process to which it belong to. Hence thread is a light weight process.

20. Life cycle of thread: (Pg: 3-17)


New
Runnable
completion
Terminated
Exit
waiting
waiting for interval
interval ends
I/O completed
I/O request
Wait
Timed waiting
Blocked