Ans 1 inheritance is the process where a child class acquires the functionality of parent class.

Ans 2 A class where the subclass inherits the features that class is called superclass
A class that inherit all the member and function from another class is called subclass

Ans 3 inheritance can be implements using two keywords
extends : is a keyword that is used for developing the inheritance between a two class and two interface
Implements : keyword is used for developing the inheritance between a class and interface

Ans 4 polymorphism is a ability to take several forms it is a ability to take object in different forms

Ans 5 difference between overriding and overloading
Compile time polymorphism in overloading
Run time polymorphism in overriding
Method call determine at compile time in overloading
Method call determine at run time in overriding

Occurs between method in same class:overloading
Occurs between subclass and super class : overriding

Have same name but different parameters
Have same signature

On error effect visible at compile time in overloading
On error effect visible at run time in overriding

Ans 6 Abstraction : it basically deals with hiding the internal details and showing the essential things to the user.

```
Abstract class sports{
Abstract void jumps();
}
```

Ans 7 Abstract method is incomplete method while final method is complete method
Abstract method can use by overriding but we can not use final method with overriding

Ans 8 A class declared with final keyword is known as final class. A final class cann’t be inherited by any

class. We can create final class when it nature is completed

```
Final class ParentClass{
Void showData(){
System.out.println(“this is method of final parent class”);
}
}
Class childClass extends ParentClass {
Sout (“this is child class”);
}}
Class mainclass {
Public static void main(String []args){
ParentClass s = new childClass();
s.showData();
}
}
```

Ans 9 Abstraction and encapsulation difference
Abstraction hide details but show essential information.
It solves issue at the design level
It focuses on external lookout

It can be implemented using abstract classes and interfaces it is the process of gaining information

Encapsulation is also a feature of oops it hides the code and data into a single entity

Encapsulation solves an issue at implementation level

It focus an internal working

It can be implemented by using access modifier

It is a process of containing the information

Ans 10 Compile time and run time polymorphism
Compile time polymorphism is less flexible as all things execute at compile time
The call is resolved by the compiler
Inheritance is not involved
It provide fast execution

Method overloading is the compile time polymorphism where more method have same name but different parameters

Runtime polymorphism is more flexible as all things execute at run time
The call is not resolved by compiler
It is also know as dynamic binding
It provide slow execution
Method overriding is the runtime polymorphism have the same method with same parameters and signature.