Open Ended Question 2 Package Question:

Create a package CIE which has two classes- Student and Internals. The class Personal has members like usn, name, sem. The class internals has an array that stores the internal marks scored in five courses of the current semester of the student. Create another package SEE which has the class External which is a derived class of Student. This class has an array that stores the SEE marks scored in five courses of the current semester of the student. Import the two packages in a file that declares the final marks of n students in all five courses

SOURCE CODE:

File 1

```
package cie;

import java.util.Scanner;

public class student {  //rename the file as student.java make it public and execute
	String sname=new String();
	String usn=new String();
	int sem;

	public student() {
		Scanner s=new Scanner(System.in);

		System.out.println("Enter your name: ");
		sname=s.next();
		System.out.println("Enter your usn: ");
		usn=s.next();
		System.out.println("Enter your sem: ");
		sem=s.nextInt();
	}
```

```
}
```
File 2
```
package cie;
import java.util.Scanner;
import cie.student;
public class internal extends student {  //when this is public, save the file as internal.java and save it
	protected float marks[]=new float[5];
	public internal() {
		Scanner ss=new Scanner(System.in);
		for(int i=0;i<5;i++) {
			System.out.println("Enter Subject " + (i+1) + " Internal marks" );
			marks[i]=ss.nextInt();
		}
	}
}
```
File 3
```
package see;

import java.util.Scanner;
import cie.internal;
import cie.student;

public class external extends internal {
	float marks2[]=new float[5];
	public external() {
		Scanner ss=new Scanner(System.in);
		for(int i=0;i<5;i++) {
			System.out.println("Enter Subject " + (i+1) + " External marks" );
			marks2[i]=ss.nextFloat();
```

```
            }
        }
        public void calc() {
            for(int i=0;i<5;i++) {
                System.out.println("Sum of Internal and External marks for
Subject " + i+ " is " + (marks[i]+marks2[i]));
            }
        }
}
```

File 4

```
import java.util.Scanner;
import cie.internal;
import cie.student;
import see.external;

class pmain {
        public static void main(String xx[]) {
            Scanner s=new Scanner(System.in);

            external b1= new external();
            b1.calc();
        }
}
```

OUTPUT (including test cases):