## <u>Lab Mid Exam - CSI 212</u>

Marks: 12 Time: 35 minutes

- 1 Create two packages named **pkg1** and **pkg2** inside src folder. Create another package named **pkg3** inside **pkg1**.
- 2 Create an abstract class named **Employee** in package **pkg1**. It has a data member named **wage**(double) and an abstract method named **printDetails()**.
- Three types of employees are allowed, **SalariedEmployee**, **CommissionEmployee** and **HourlyEmployee**. Create the **SalariedEmployee** class having no extra data member inside **pkg1**, **CommissionEmployee** class having a data member named **commission** (double) inside **pkg3** and **HourlyEmployee** class having a data member named **hours** (int) inside **pkg2**.
- 4 Create constructors for each of the class in step **3**. The constructors will take only one value **(double)** as parameter and assign this value to the data member, **wage**.
- 5 You should be able to print the name of the class and the salary of each employee separately using the **printDetails()** method.
  - 5.a The salary of the **SalariedEmployee** is the value of **wage**.
  - 5.b The salary of the **CommissionEmployee** is the value of **wage+wage\*commission**.
  - 5.c The salary of the **HourlyEmployee** is the value of **wage\*hours**.

For example, if the object is of class **SalariedEmployee**, then calling this method will print:

"The salary of the **SalariedEmployee** is **salary**".

- 6 Create a class named **AbstractMain** in **pkg2** and write down the **main method inside this class**.
- 7 Create an array named **employees** of length 3 of type **Employee** and instantiate three objects of classes **SalariedEmployee**, **CommissionEmployee** and **HourlyEmployee**, that means one object of each class. You must take input from user for instantiating the value of the variable, **wage**.

[You can assign values to other instance variables manually]

8 Print the details of each object of the array.

**Submission guideline:** Zip the **src** folder and submit it.