## Exercise - 5

- 1. Write a Java program which contains a super class named 'A'. Class 'A' contains two methods. Create a sub class named 'B' which contains a new method. Create an object of class B and call all the three methods.
- 2. Write a Java program to demonstrate the use of 'super' keyword.
- 3. Write a Java program to demonstrate method overriding using shape hierarchy.
- 4. Write a Java program to demonstrate dynamic method dispatch.
- 5. Write a Java program to create an interface named 'IShape' which contains abstract methods common to all shape classes. Create necessary shape classes which implements the interface 'IShape'.
- 6. Write a Java program to create a package named 'mypackage'. The package 'mypackage' contains two classes named 'Class1' and 'Class2' each of which contains a single method. Create a Driver program which imports both the classes from the package 'mypackage' and call the methods in those classes.
- 7. Write a Java program to handle '/ by zero' exception using try and catch blocks.
- 8. Write a Java program to handle 'null pointer' exception using try and catch blocks.
- 9. Write a Java program to handle both '/ by zero' and 'array index out of bounds' exceptions using nested try blocks.
- 10. Write a Java program to demonstrate user-defined exception.