

NEW

2015

BCA

5th Semester Examination

OBJECT ORIENTED PROGRAMMING USING JAVA

PAPER—3101

Full Marks : 70

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any five from the rest.

1. Answer any five questions : 5×2
- (a) Why Java is called a secure language?
 - (b) Why is the main method declared static?
 - (c) What is supper class constructor?
 - (d) Why import statement are used for?

(Turn Over)

- (e) What is the difference between `==` and `equals()` while comparing two strings?
- (f) Does Java support default arguments? Support your answer.
- (g) What will be the output of the following code :

```
public class sting Test
{
    public static void main (string a [])
    {
        System.out.print (10+20+ "hl"+ 10+3+"hl"+50+60);
    }
}
```

2. (a) How is Java platform independent? Explain the working of JVM? 4+4
- (b) Can we invoke a non-static method from a Static method of the same class directly, i.e. without using object? Explain why/why not. 4
3. (a) What is a constructor? Explain the different types of constructors in Java. 2+6
- (b) What are the rules for overriding a method? Can constructor be overridden? 4

4. (a) Define the concept of inheritance. Explain the advantage of inheritance with the help of an example. 2+4
- (b) What is an interface? Write a Java program to show how a class implements two interfaces. 2+4
5. (a) What is multithreading? How is thread synchronization implemented in Java? Explain with an example. 2+5
- (b) Explain use of super keyword in Java, with an example for each.
6. (a) Explain the different steps in the life cycle of an applet. 7
- (b) Write an applet that draws circles, a line and a polygon inside the applet's visible area. 5
7. (a) What is exception? Explain difference between checked and unchecked exceptions with an example for each. 2+4
- (b) Explain the need of 'user created package' in Java. Also, explain the procedure of creating a package in Java. 2+4

8. Write Short Note (any three) :

3×4

- (a) Abstract class ;
 - (b) Nested class ;
 - (c) Wrapper class ;
 - (d) Final Keyword ;
 - (e) Super Keyword.
-