No. of Printed Pages: 3

**CS-74** 

## BACHELOR OF COMPUTER APPLICATIONS (BCA) (Pre-Revised)

## **Term-End Examination**

December, 2016



## CS-74: INTRODUCTION TO INTERNET PROGRAMMING

Time: 2 hours

Maximum Marks: 60

**Note:** Question number 1 is **compulsory**. Attempt any **three** questions from the rest. Use Java programming language in your answers.

1. (a) Does Java support multiple inheritance?

Can you use interfaces to achieve multiple inheritance in Java? Explain with an example.

5

(b) Write a program that draws a line, a colour-filled rectangle and a colour-filled circle using an Applet.

5

(c) What is a Stream? Write a Java program using FileReader and PrintWriter classes to read from a file and write it out again.

6

|    | (d)          | Bring out the difference between a "while" and a "dowhile" loop with the help of example code fragments.                            | 5 |
|----|--------------|---|---|
| •  | (e)          | What is a Thread in Java? When is it used? List any three methods in the Thread class.  | 6 |
|    | ( <b>f</b> ) | What is an abstract class? Why are they needed?   | 3 |
| 2. | (a)          | Describe the different stages in the life cycle of an Applet. Also write the four differences between an Applet and an Application. | 7 |
|    | (b)          | Describe the significance of wrapper classes.   | 3 |
| 3. | (a)          | What is a package in Java? Explain the procedure to create a user-defined package in Java.  | 6 |
|    | (b)          | Define Constructor. What is the purpose of default constructor? Does a constructor return any value?                                | 4 |
| 4. | (a)          | What is 'finally' in Java? How many finally blocks can be associated with a try block? Give an appropriate example and explain.     | 5 |
|    | (b)          | Write a Java program to illustrate the use of switch statement.   | 5 |
|    |              |   |   |

5. (a) Write a Java program to illustrate polymorphism with the help of late binding when calculating the area of a figure that can be a rectangle, a triangle or a circle.

7

(b) Why is Java called Architecture-neutral? Explain.

3