# END TERM EXAMINATION

### FOURTH SEMESTER [BCA] MAY-JUNE 2014

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| Paper Code: BCA-206 | Subject: *Java Programming* (2011 Onwards) |
| Time : 3 Hours | Maximum Marks: 75 |

**Note: Attempt any five question, including Q.no.1 which is compulsory. Select one question from each Unit.**

Q1
(a) Which event is generated when a scrollbar is updated?
(b) How does Java ByteCode differ from other machine level codes?
(c) What is an adapter class?
(d) Which are the access specifiers available in Java?
(e) What is a reference variable?
(f) Can an applet class have a constructor? Justify your answer.
(g) What are the roles of Java compiler and interpreter?
(h) State the purpose of a static block.
(i) Why Java is called TypeSafe language as compared to C++?
(j) State the use of 'this' keyword.                    (10x2.5=25)

### Unit-I

Q2
(a) What are abstract classes? How does they differ from concrete classes? Can an abstract class be instantiated? Can there be an abstract constructor. Explain your answer with suitable example.                    **(6)**
(b) What is a constructor? Does Java provide a default constructor? Does Java provide a default copy constructor? Explain your answer with suitable example.**(6.5)**

**OR**

Q3
(a) How is method overloading different from method overriding? Give suitable example.                    **(5.5)**
(b) What is the need of an interface in Java?                    **(4)**
(c) Discuss the usages of 'final' keyword.                    **(3)**

### Unit-II

Q4
(a) Compare String and StringBuffer classes with suitable examples.    **(3)**
(b) Mention various states of a thread. Give their features.    **(4.5)**
(c) Discuss the process of synchronization of threads with an example.    **(5)**

**OR**

Q5
(a) Write a Java program to copy contents of one file to another file.    **(6.5)**
(b) Differentiate between checked and unchecked exceptions. Write a program to create user-defined exception and use the same in the main program.    **(6)**

### Unit-III

Q6
(a) What is delegation event model? Write a program to illustrate the keyboard **OR** mouse event handling.    **(8)**
(b) Differentiate between Swings and AWT controls.    **(4.5)**

**OR**

Q7
(a) Explain the life cycle of an applet.    **(5)**
(b) Write a program to display a student's details such as name, roll number, marks etc. in an applet window. Provide these input details through html file.    **(7.5)**

### Unit-IV

Q8
(a) What is JDBC? Discuss the general JDBC architecture. What are basic steps to create a JDBC application?    **(7)**
(b) What are the different types of JDBC statement?    **(3)**
(c) Write a short note on Client-Server applications in Java.    **(2.5)**

**OR**

Q9
Write notes on the following:-
(a) Java Servlets    **(3)**
(b) InetAddress class    **(3)**
(c) Byte and Character stream classes    **(3)**
(d) Layout Manager.    **(3.5)**

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