



Reg.No.									
---------	--	--	--	--	--	--	--	--	--

INTERNATIONAL CENTRE FOR APPLIED SCIENCES
(Manipal University)
II SEMESTER B.S. DEGREE EXAMINATION – APRIL/ MAY 2017
SUBJECT: JAVA PROGRAMMING (CS 243)
(BRANCH: CS)
Wednesday, 26 April 2017

Time: 3 Hours

Max. Marks: 100

- ✓ Answer ANY FIVE full Questions.
- ✓ Missing data, if any, may be suitably assumed

1. a) Discuss any six Java Buzz words. (12)
b) How is 'this' keyword used with all constructor types? Explain with an example program. (5)
c) Write short notes on:
i) Whitespaces and Identifiers in Java.
ii) Why do we need import statement in Java? (3)
2. a) Explain iteration statements with suitable java codes. (12)
b) Describe inheritance and its purpose. What are the uses of keyword super in inheritance? Explain with example programs. (8)
3. a) What is a package? Explain with an example, how name conflicts are resolved during package import. (5)
b) Explain nested interfaces with an example program. (5)
c) i) Describe all the states in which a Java thread exists.
ii) Write a Java program that defines an integer stack interface to store and retrieve an item. Also write the implementation of a fixed-length stack that implements fixed-length version of the above integer stack interface. (10)
4. a) Describe the purpose of using throw clause in java. Write the syntax of throw and demonstrate the same with an example program. (5)
b) What is a division-by-zero error? Write a Java program that has a try block and a catch clause that processes an ArithmeticException generated by such an error. (3)
c) Discuss finally keyword. With an example program, show three different ways for a method to exit without executing the finally clause. (10)
d) Name the super class in Java Exception handling. What are the two main subclasses of the super class? (2)
5. a) Write a program in Java to show how to use the class FileInputStream to read a file named abc.dat. This code should print each byte's value separated with white spaces. Byte values are represented by integers from 0 to 255, and if the read() method returns -1, this indicates the end of the stream. (8)
b) What is synchronization? When should Synchronization be used in Java? What are the three ways to define synchronized blocks? (8)
c) Write a program in Java to copy one file to another file using command line arguments. (4)

6. a) Write the applet skeleton. Also discuss all the methods mentioned in the applet skeleton. (10)
- b) Write a Java program for a simple banner applet that creates a thread that scrolls a message right to left across the applet's window. (8)
- c) Describe ActionListener and ItemListener interfaces with its syntax. (2)
7. a) Write a complete Java program to show how to create a frame window from within an applet. (8)
- b) What is Grid Layout? Write down the constructors of the same. For the Grid Layout output in fig.7b, write the program.



Fig.7b

- c) Illustrate FileDialog using a java program. (6)
8. a) Write example code snippets for the following: (6)
- i) JLabel (2)
- ii) JTextField (2)
- iii) JButton (2)
- iv) JTabbedPane (2)
- b) Describe JDBC (2)
- c) i) Discuss the life cycle of a servlet. (3)
- ii) Write a Java Servlet program for the following scenario:
 - A web page is defined in PostParameters.htm, and a servlet is defined in PostParametersServlet.java.
 - PostParameters.htm defines a table that contains two labels and two text fields. One of the labels is Employee and the other is Phone. There is also a submit button. The action parameter of the form tag specifies a URL. The URL identifies the servlet to process the HTTP POST request.
 - PostParametersServlet.java gets all parameters names and all values for each parameter and displays them in HTML formatted response. (7)

