UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)
उत्तराखंड मुक्त विश्वविद्यालय, हल्द्वानी (नैनीताल)

MSCIT 2ND YEAR 4TH SEMESTER ASSIGNMENT

Last Date of Submission: 31 May 2016

Course Title: Programming in Java   **Course Code:** M.Sc.IT-13

Year: 2015-16   **Maximum Marks:** 40 Marks

Section 'A' contains 08 short answer type questions of 5 marks each. Learners are required to answers 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

1. What are the basic features of Java?

2. Write a program to create an applet that includes login-name and password. Users are allows to login at most three times otherwise window will be closed.

3. Write short notes on:
   i. Two Tier Client Server Model
   ii. Three Tier Client Server Model

4. What is the difference between Array and Vectors? When will you use array over vectors?

5. What is the difference between overloading and overriding? Explain with example.

6. Write the steps to connect Java Application with any database to fetch the data from any table of that database.

7. What is Java swing? Explain the features of Java swing with an example.

8. What is the difference between string and string Buffer class?

Section 'B' contains 04 long answer-type questions of 10 marks each. Learners are required to answers 02 questions only.

1. (a) Write AWT program in Java to find sum, multiplication and average of three numbers.
   (b) How a source file of Java is converted into executable file? Explain each step and tools involves in this process.

2. (a) Why Java is called machine independent language. Explain the functionality of JVM.

   (b) How do you perform exception handling in Java? Explain with suitable example.

3. (a) What do you mean by an applet? Briefly discuss about the life cycle of an applet.

   (b) Describe Java Servlets and JSP with suitable example.

4. (a) Explain all decision making and control statements available in Java.

   (b) What do you mean by multithreaded programming? Explain with a suitable example.