** CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING**

******Advanced Computing Training School (ACTS)**

**C-DAC ATC NETCOM JAIPUR**

**Diploma in Advanced Software Development Methodologies (DASDM)**

**Student Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Module Name: OOPS and Data Structure using Java**

**PRN No \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Duration: 2 Hours**

**SET-C**

Attempt any four questions. Each Question is of equal marks.

1. Write a program using Client Server Programming (Socket Programming) which shows the communication between Client and Server. Design a Client and Server Program for Two-Way Communication and run the program using Two Command Terminals
2. Define a class that describes a hotel. It should have members that include the name, address, grade, average room charge and number of rooms.

Write a Method to perform the following tasks

A. To print all hotels details of a given grade in order of charges

B. To print hotel details with room charges less than given values

1. Write a Python Function, which accepts a matrix of “m” rows and “n” columns. It returns the row numbers that the maximum sum of the row elements. For example, if the matrix is as shown in the following, then the function return 2 (i.e., the row having elements 6, 5, 7, 8).

0 2 3 9

1 1 3 5

6 5 7 8

0 2 4 2

1. Write a Java Program which shows the Thread Synchronization

1. Print Multiplication Table of 15

2. To find the Reverse of the given number

1. Differentiate between String, StringBuffer and StringBuilder. Show the Performance using Java Program which one is better.