



**National Institute of Technology, Raipur**

राष्ट्रीय प्रौद्योगिकी संस्थान, रायपुर  
G.E. Road, Raipur-492010 (C.G.)

Phone: (0771) 22 54 200  
Fax: (0771) 22 54 600  
Website: [www.nitr.ac.in](http://www.nitr.ac.in)

**Course Name: Computer Lab 201 (Data Structure)**

**Instructor: Dr. Dibakar Saha and Dr. C. M. Anish**

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**Assignment 1:**

**Problem 1:** Write a C Program to take a value of  $n$  and insert  $n$  random values between 1 to 10 in an array A. **4 points**

- 1.1 Print all the values.
- 1.2 Find the maximum and minimum values from A and print them.
- 1.3 Find the sum of  $n$  elements in array A. Print the sum value.
- 1.4 Find the average of the  $n$  elements. Print the average value.

**Problem 2:** Write the following C Program.

**6 points**

- 2.1 Take two matrices (2D array) A and B of size  $m \times n$  and  $p \times q$ , respectively.
  - 2.2 The values of  $m$ ,  $n$ ,  $p$ , and  $q$  would be the user input.
  - 2.3 Take values from users for A and B.
  - 2.4 Now take another resultant matrix C which stores the sum of A and B.
  - 2.5 Now take another resultant matrix D which stores the multiplication of A and B.
  - 2.6 Print A, B, C, and D.
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