



# ANURAG GROUP OF INSTITUTIONS

Autonomous

School of Engineering

I – B. Tech – II – Semester – I - Assignment Examination

Subject: Programming For Problem Solving -II

(Common to ALL)

Time: 50Mins

Max.Marks:05

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**Answer all the questions:**

1. Design a program for addition and multiplication of matrices using pointer notation.
2. Compare and Contrast between with an example.
  - a. Static and Dynamic memory allocation
  - b. Structure and Union.
  - c. Call by Value and Call by reference
3. Outline various dynamic memory allocation functions available with an example for each.
4. Illustrate the concept of self-referential structure.
5. Illustrate the concept of pointer to structure, with an example.
6. What is the need of array of structures? Give an example.
7. Can we make an array as a member of a structure? If yes, give an example.
8. Can we nest one structure within another structure? If yes, give an example.
9. How do we pass a structure variable and entire structure as an argument to a function? Give an example.
10. Create a structure to specify data of customers in a bank. The data to be stored is: Account number, Name, Balance in account. Assume maximum of 20 customers in the bank. Create a function to read all customers details and call it in main. Your program must be menu driven with following options
  1. Print the Account number and name and balance of each customer.
  2. Withdraw money
  3. Deposit money
  4. Search Customer
11. Define a structure, student, to store the following data about a student: rollno (int), name (string) and marks[6] (int)  
Suppose that the class has 20 students. Use an array of 20 elements of type Student. Create a function to read the students' data into the array. Your program should be menu driven that contains the following options :
  - a. Print all students details
  - b. Search student by rollno
  - c. Print the names of the students having the highest test score.

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