

## MCA DEGREE I SEMESTER EXAMINATION, NOVEMBER 2008

## CAS 2102 PROGRAMMING IN 'C'

Time: 3 Hours

Maximum marks : 50

**PART A**(Answer **ALL** questions)(All questions carry **EQUAL** marks)

(15 x 2 = 30)

- I. (a) What are the different types of operations used in C language?  
 (b) What is an identifier? What are the rules to be considered while naming identifiers?  
 (c) What is typecasting? Write the general syntax of type casting.
- II. (a) What is sequential execution? How can sequential flow of control be altered?  
 (b) What is the ambiguity that arises when nested if statements are used? How is it resolved?  
 (c) Write the difference between while and do-while loops with examples.
- III. (a) What is a C preprocessor?  
 (b) Write the concept of recursion with an example.  
 (c) Write a C program to read the given n numbers. Find the sum of all positive and negative numbers separately.
- IV. (a) Distinguish between structure and union with examples.  
 (b) What is a pointer variable? What are the uses of pointers?  
 (c) What is an enumerated data type? Write an example for enumerated data type.
- V. (a) Write a C program to create a text file.  
 (b) Distinguish between get c ( ) and get w ( ) functions with examples.  
 (c) What is the use of fseek ( ) function? Write the general format for fseek ( ) function.

**PART B**(All questions carry **EQUAL** marks)

(5 x 4 = 20)

- VI. A Explain the various data types in C with its sizes.  
 OR  
 B Discuss about operator precedence and associativity in C language. Why is it important?
- VII. A. Discuss the different storage classes in C with examples.  
 OR  
 B. Write a C program to reverse a given number. Also display the sum of the digits of the given number.
- VIII. A. Write a C program to generate first 15 fibonacci numbers using recursion.  
 OR  
 B. Write a C program to solve the series  $s = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} \dots \dots \dots \frac{x^n}{n!}$ .
- IX. A. Write a C program using pointers to check whether the given string is palindrome.  
 OR  
 B. Explain with examples how do you declare and manipulate the single and two dimensional arrays using pointers.
- X. A. Write a C program to read a file containing integers. Find the largest and smallest integers and display them.  
 OR  
 B. Given a text file, write a C program to create another file deleting all the vowels.