



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

MCA 1ST YEAR 1ST SEMESTER ASSIGNMENT

Last Date of Submission: 15/01/2016

Course Title: Computer Programming Using C

Course Code: MCA-03

Year: 2015-16

Maximum Marks: 40

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 different data types in C? Explain.
2. Differentiate between global variable and local variable.
3. Write a program in 'C' whether the number is prime or not.
4. What is dynamic memory allocation? Explain using a suitable example.
5. Write a C program to input your name, count and display total number of characters and vowels using pointers.
6. What is function? Differentiate between call by value and call by reference using a suitable example
7. Explain recursion with a suitable example.
8. Explain any two pre-processor directives with a suitable example.

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

1. Explain different types of storage classes with suitable examples.
2. Design a structure **student_record** to contain **name**, **roll number** and **total marks** obtained. Develop a program to read data of 10 students in a class and also calculate and print average marks of the class.
3. Explain different input and output operations on files using suitable examples. Write a C function that compares two files and returns 0 if they are equal and 1 if they are not.

4. Explain following with suitable example:
- While loop
 - Do...while loop
 - for loop
 - break statement
 - continue statement

