Comp. 1201

## KERALA AGRICULTURAL UNIVERSITY <br> B. Tech (Agrl.Engg.) 2015 \& Previous Admissions <br> II Semester Re-Examination-August-2017 <br> Computer Programming and Data Structures (1+1)

Marks: 50
Time: 2 hours

## Fill up the blanks

C programming language was developed by
-------------- is an unconditional branching statement in C.
-------------- is a decrement operator in C.
-------------- function is used for reading a character from keyboard.
-------------- is used to indicate that there are no parameters in the function.
Which of the following special symbol is allowed in forming a variable name?
a) * (asterisk)
b) - (hyphen)
c) $\quad$ (pipeline)
d) _ (underscore)

How would you round off a value from 1.66 to 2.0
a) Ceil (1.66)
b) Floor (1.66)
c) roundup (1.66)
d) roundto (1.66)

In Mathematics and Computer Programming, which is the correct order of mathematical operators?
a) Addition, Subtraction, Multiplication and Division.
b) Division, Multiplication, Addition and Subtraction
c) Multiplication, Addition, Division and Subtraction
d) Addition, Division, Multiplication and Subtraction

Which of the following is the correct order of calling functions in the below code?
$\mathrm{A}=\mathrm{fl}(23,14) * \mathrm{f} 2(12 / 4)+\mathrm{f} 3()$.
f1,f2, f3
b) $\mathrm{f3}, \mathrm{f} 2, \mathrm{fl}$
c) order may vary from compiler.
d) None of the above

Can you combine the following two statements into one?
char *p;
$\mathrm{p}=($ char $*)$ malloc $(100)$;
a) char $\mathrm{p}=*$ malloc(100);
b) char $* \mathrm{p}=$ (char)malloc(100);
c) char ${ }^{*} \mathrm{p}=($ char $*) \operatorname{maloc}(100)$
d) char ${ }^{*} \mathrm{p}=($ char * $)($ malloc $*)(100)$;

## Write short notes on any FIVE

Write short note on Hierarchy of Arithmetic operators in C.
Explain FOR Loop in C with example.
What is the importance of $\operatorname{break}()$ and continue() statement in $C$ ?
What is an operator? Explain relational and logical operators in C.

5 Write a program in C to reverse a given number.
6 What is a function parameter? Explain different types of parameters in C functions.
7 What is queue? Explain it with its applications

III

## Answer any FIVE

Explain malloc() and calloc() functions in C.
Explain Nested FOR Loop in C with example.
3 What is File handling in C? Explain
4 What is the importance of Library functions in C?
5 Write a program in C to check whether the given number is prime or not.
6 Explain Binary Search.
$7 \quad$ Write a program in C to check whether the given character is a vowel or not.

IV Write essay on any ONE
( $1 \times 10=10$ )
1 Write a program in C to read $\mathbf{n}$ numbers into an array and sort the numbers in ascending order using quick sort.

2 Explain one dimensional and two dimensional array. Write a program in C to find the largest of $\mathbf{n}$ numbers using FOR Loop and array.

