

# KERALA AGRICULTURAL UNIVERSITY

B.Tech (Agrl.Engg) 2014 Admission  
II<sup>nd</sup> Semester Final Examination-June/July-2015

Cat. No: Comp.1201

Title: Computer programming and Data structures (1+1)

Marks: 50

Time: 2 hours

I. Fill in the blanks:- (Q. Nos 1 to 5) (5x1=5)

1. Single quotes are used with constants of ..... type.
2. A ..... is used to change the type of a value.
3. .... function is used to free the allocated memory.
4. By default, a .....number is treated as a double.
5. .... is a subpart of a program which can be reused as and when required.

Choose the correct answer in each of the following questions (5 x1 =5)

6. What does the following declaration mean?

Int (\*ptr)(10);

- a) ptr is an array of pointers to 10 integers.
  - b) ptr is a pointer to an array of 10 integers
  - c) ptr is an array of 10 integers.
  - d) ptr is pointer to an array.
7. In C, if you pass an array as an argument to a function, what actually get passed.
- a) Value of elements in array.
  - b) First element of the array.
  - c) Base address of the array.
  - d) Address of the last element of array.
8. In the following code, P2 is integer pointer or Integer?
- ```
Typedef int *ptr;  
ptr p1,p2;
```
- a) Integer
  - b) Integer Pointer
  - c) Error in declaration
  - d) None of the above.
9. If two strings are identical. then strcmp() function returns
- a) -1
  - b) 1
  - c) 0
  - d) Yes
10. Which header file should be included to use functions like malloc() and Calloc()?
- a) memory.h
  - b) stdlib.h
  - c) string.h
  - d) dos.h

**II Write short notes on any FIVE questions**

(5 x 2=10)

1. What is pseudo code? How it is used as a problem –sol ing tool
2. Distinguish between Compiler and Interpreter
3. What are the rules to form an identifier in C programming
4. Explain Increment and decrement operators in C
5. Explain the switch ( ) statement with syntax and example
6. What is a structure .Explain the syntax of structure declaration with example
7. What is stack? Explain it with its applications

**III Write short notes on any FIVE questions**

(5 x 4=20)

1. Explain the two way selection (If. If..else .nested if else. else..if ladder) in C language with syntax
2. Write a program in C to find the factorial of a given number
3. What do you mean by call by value and call by reference .give example
4. Explain recursive function with example
5. Explain Do while statement with example
6. What is an array? Explain the declaration and initialization of one and two dimensional array with example
7. Explain any five string manipulation library functions in C with examples

**IV Write an essay on any ONE**

(1 x 10=10)

1. Write a program in C to read register number and marks in 5 subjects and print the result based on the calculations given below  
If percentage  $\geq 80$  result is Distinction  
If percentage  $< 80$  and  $\geq 60$  result is First class  
If percentage  $\geq 60$  and  $< 50$  result is second class otherwise Failed
2. Write a program in C to read n numbers into an array and sort the numbers in ascending order using Bubble sort

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