Name: KEY Id#

ICS 103, Term 083

Computer Programming in C

Quiz# 1

Date: Tuesday, July 21, 2009

# **Q1.** Fill the blank in each of the following:

## Random Access Memory (RAM) is volatile memory that can be accessed in any order (as opposed to sequential access memory).

## Read Only Memory (ROM) is non-volatile memory that cannot be written to.

## Examples of secondary memory include hard disk and CD.

## Central Processing Unit (CPU) coordinates all computer operations and performs arithmetic and logical operations on data.

## Operating System controls the interaction between machine and user.

## Compiler translates high-level programs to machine code.

## Linker turns the Object File into an Executable.

## Advantages of programming in high level languages include portability and ease of development and maintenance.

## Advantages of programming in assembly language include accessibility to hardware resources and space and time efficiency.

## Software development is based on the following steps: specify problem requirements, analyze the problem, design the algorithm to solve the problem, implement the algorithm, testand verify the completed program, maintain and update the program.

## Algorithm isa list of steps for solving a problem.

## The benefit of pseudo code is that it enables the programmer to concentrate on the algorithms without worrying about all the syntactic details of a particular programming language.

## The # include<stdio.h> directive is used to include the file stdio.h into your source file before compilation which includes definitions of functions in the stdio library.

## The #define M 5 directive instructs the preprocessor to replace each occurrence of M in the program by 5 before compilation.

## In C language, the data type int is used for representing integer numbers, the data type float or double is used for representing real numbers and the data type char is used for representing characters.

## The expression 4+6/2+3 evaluates to 10.

## The expression (double) 6/4 evaluates to 1.5.

## The expression 8.0\*10/4\*5-1 evaluates to 99.0.

## The expression 8.0 +10/4\*5-1 evaluates to 17.0.

## The expression 35%15%2 evaluates to 1.

**Q2.** Show the output of the following program in the space provided below it. Each square corresponds to one space.

#include <stdio.h>

int main(void) {

int i=-956;

double j=99.517;

printf("%7.0f %10.2f\n",j,j);

printf("%3d %6d",i,i);

return 0;

}

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|  |  |  |  | **1** | **0** | **0** |  |  |  |  |  |  | **9** | **9** | **.** | **5** | **2** |  |  |  |
| **-** | **9** | **5** | **6** |  |  |  | **-** | **9** | **5** | **6** |  |  |  |  |  |  |  |  |  |  |