

Entrance Exam

ICS 3/4U

Mr. Rivard

Key Terms:

Give a brief description, definition or example of the following, or expand the acronym:

(REMINDER: An acronym is an abbreviation formed by the first letters of a phrase or name)

1. CPU:
2. RAM
3. ROM:
4. Hard Drive:
5. Motherboard:
6. ASCII/Unicode:
7. Bus *(in computers, not human transportation)*:
8. I/O:
9. Binary:
10. Hexadecimal:
11. Algorithm:
12. Compiler:
13. IDE:

14. Array:

15. Function:

16. Procedure:

17. Scope:

18. Pseudocode

19. Flow Chart:

20. Test Plan:

Data Types:

Identify the following data types and describe them.

Data Type	Description
integer	
floating point	
string	
Boolean	

What are the **minimum** and **maximum** values for:

1. integers

2. floating point

Complete the following truth tables by putting the appropriate T or F in the cell:

a AND b	a = T	a = F
b = T		
b = F		

a OR b	a = T	a = F
b = T		
b = F		

a XOR b	a = T	a = F
b = T		
b = F		

NOT a	Value
a = T	
a = F	

a AND b OR c

a	b	c	Value
F	F	F	
F	F	T	
F	T	F	
F	T	T	
T	F	F	
T	F	T	
T	T	F	
T	T	T	

Control Structures

Answer the following questions about control structures by indicating the type of structure necessary on the given line.

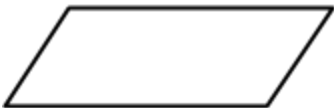
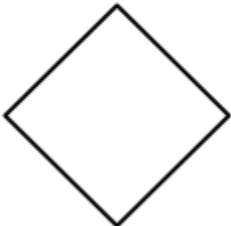
The control structure(s) responsible for making decisions based on True or False values are:

The control structures responsible for repeating a set of instructions multiple times in a row are:

The control structure(s) responsible for allowing you to perform a set of instructions at any time and any number of times is:

Flow Charts

Identify the following shapes in a flow chart by their function/usage:



Code Tracing

Look at the following piece of pseudocode. Fill in the table for all of the values and indicate the output values on the “Screen.”

PSEUDOCODE:

```
1      integer i = 0;
2
3      while i is less than 3 do:
4          integer j = 0;
5          while j is less than or equal to i, do:
6              if i is odd then do
7                  output line (i + 1) * (j + 1)
8              else
9                  output line i + j
10             end if
11             increase j by 1
12         end while
13         increase i by 1
14     end while
```

Step	i	j
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Screen

