

Module 1 (Lectures 1-2) Program execution and Data Representation

1. The maximum unsigned integer value that can be represented in 8 bits is
 - a) 127
 - b) 128
 - c) 255
 - d) 256
2. You can get the GNU C compiler to produce an assembly language equivalent of your C source program using the compiler flag
 - a) -a
 - b) -S
 - c) -p
 - d) -x
3. In sign-magnitude representation, the signed integer value -2 will be represented in 8 bits as
 - a) 10000001
 - b) 10000010
 - c) 00000001
 - d) 00000010
4. The IEEE floating point uses a normalized representation in order to
 - a) ensure that each real value has a unique representation
 - b) reduce the number of bits needed to represent the exponent
 - c) remove the need for a sign bit
 - d) provide a way to represent infinity
5. A program written in a high level language is compiled before it is executed in order to
 - a) identify logical errors in the program
 - b) improve the formatting of the program statements
 - c) produce a program that can be executed on hardware
 - d) test the program thoroughly before it is used in the field