Self Review

1.1 Hardware is the actual physical pieces of the machine, while software is the applications and non tangible objects in a computer system.

1.2 The two jobs of an operating system are to interface the user with the machine and to run software applications

1.3 When information is stored digitally it is changed into a series of 1s an 0s.

1.4 The number of items that can be represented are A. 2 items, B. 16 items, C. 32 items, D. 128 items.

1.5 There are 64 bits in 8 bytes, there are 16000 bits in 2kb, and there are 32000000 bits in 4 mb

1.6 The central processing unit and main memory are the two main devices, they each work with each other since memory stores information pertaining to running applications while the CPU directs them.

1.7 A memory address is an address related to a certain location in which data is stored.

1.8 Volatile means that the dada can be lost with power loss, like RAM, nonvolatile pieces are devices like hard drives.

1.9 A file server is a server in which multiple people can access the files an work collaboratively, it can also be accessed remotely.

1.10 There need to be 10 communication lines for a fully connected point to point network of 5 computers.

1.11 The word internet is derived from interconnected network.

1.12 In the URL’s [mcps.org](http://mcps.org) is the domain name, while chs points to a subdomain directory within the domains folder, /faculty/ points to a further directory within the server and finally index.htm is the home or default file in which to display.

1.13 high level languages are more like english and make it easier to do tasks, while machine level is very complex and echan function must be combed 1 at a time.

1.14 Java bytecode is the instruction set of the virtual machine, represent by 1 or 2 bytes which make up an instruction.

1.15 Any blank character that makes up horizontal or vertical space. No it does not always affect execution.

1.16 Black&white are not valid because it contains an & which is used elsewhere in code and cannot be used in an identifier.

1.17 Syntax is the structure of the language while semantics is what words mean in the language

1.18 a balck and white picture can be represented with 1s an 0s by using 1s for white and 0s for black

Multiple Choice

1.1 C

1.2 B

1.3 D

1.4 E

1.5 A

1.6 E

1.7 B

1.8 E

True False

1.1 False

1.2 False

1.3 True

1.4 True

1.5 False

1.6 True

1.7 False

1.8 True

1.9 False

1.10 False

Short Answer

1.1 keyboard, mouse, 4mb ram, 1.7 MHz cpu

1.2 We use a binary number system because inside the computer there are only 2 states on, 1, and off, 0.

1.3 240 characters would require 1920 bits.

1.4 RAM is memory that can be stored onto, read-only is memory which can only be read not written.

1.5 LAN’s are a network of computers very close in geographical location, WAN’s are not restricted by geographical region, they instead connect to many LAN’s.

1.6 the number of connections needed for a point to point network of 8 computers in 16, 9 computers, 18, 10 computers, 20 connections, the general formula is 2 times the number of computers.

1.7 two types of comments in java are # which are for single line use and \\* \*/ which span over multiple lines until it meets the closing character.

1.8 The first two ‘q’ and ‘totval’ are hard to understand what they mean, ‘thenextvalueinthelist’ is long and hard to read.