

FORM 4 COMPUTER STUDIES
Chapter 5: Alphanumeric Information
 March, 01

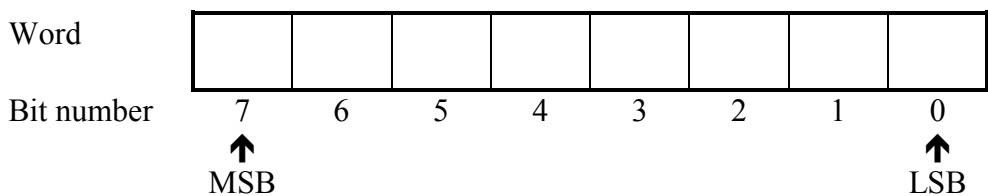
5.1 BINARY CODES

- computers are made up of _____ electronic devices;
- all the data (numbers, alphabets, control characters, etc.) inside a computer is represented by patterns of _____ and _____, which is called _____ or _____.

5.2 BITS, BYTES, WORDS (AGAIN...)

Bit	Binary digit the smallest binary notation in computer, either 0 or 1.
Byte	a group of _____ bits
Word	a unit of data which can be manipulated by the computer in one operation OR a string of bits which can occupy a single addressable memory location
Wordlength	a number of bits in a word

- e.g. In a 8-bit Apple II microcomputer:



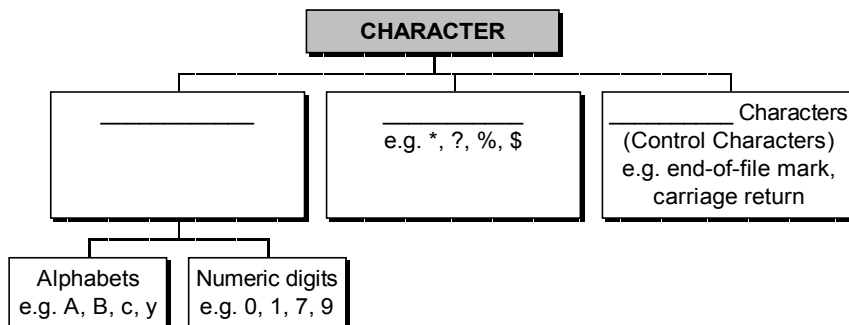
MSB - Most Significant Bit LSB - Least Significant Bit

Wordlength = 8 bits
 = 1 byte

5.3 THE CHARACTER CODES

- The computer can store and manipulate not only numeric data but also non-numeric data. These data are called _____ or simply a _____.

- Character can roughly classified as follows:



- For an 8-bit computer (e.g. Apple II), The character set contains $2^8 = 256$ characters;
- Characters are encoded in . The most common coding system is A S C for I I (ASCII) code:
 - uses a coded character set consisting of -bit coded characters, therefore there are different ASCII codes;
 - mainly used for information interchange among data processing systems and related equipment;
 - most popular intercomputer communication system used by microcomputers.
- A Partial Character List For ASCII:

CHARACTER	ASCII	CHARACTER	ASCII
0	48	F	70
1	49	G	71
2	50	H	72
3	51	I	73
4	52	J	74
5	53	K	75
6	54	L	76
7	55	M	77
8	56	N	78
9	57	O	79
:	58	P	80
;	59	Q	81
<	60	R	82
=	61	S	83
>	62	T	84
?	63	U	85
@	64	V	86
A	65	W	87
B	66	X	88
C	67	Y	89
D	68	Z	90
E	69		

END OF CHAPTER 5