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Section 1 lab

Operation	M	A	B	C _{out}	S4 S3 S2 S1
7 + 5	0	0111	0101		1100
4 + 6	0	0100	0110		1010
9 + 11	0	1001	1011	1	0100
15 + 15	0	1111	1111	1	1110
7 – 5	1	0111	0101	1	0010
4 – 6	1	0100	0110		1110
11 – 2	1	1011	0010	1	1001
15 – 15	1	1111	1111	1	0000

Table F.1.1

Decimal Value	Binary Sum					BCD Sum				
	C _{out}	Z ₃	Z ₂	Z ₁	Z ₀	C	S ₃	S ₂	S ₁	S ₀
0	0	0	0	0	0		0	0	0	0
1	0	0	0	0	1		0	0	0	1
2	0	0	0	1	0		0	0	1	0
3	0	0	0	1	1		0	0	1	1
4	0	0	1	0	0		0	1	0	0
5	0	0	1	0	1		0	1	0	1
6	0	0	1	1	0		0	1	1	0
7	0	0	1	1	1		0	1	1	1
8	0	1	0	0	0		1	0	0	0
9	0	1	0	0	1		1	0	0	1
10	0	1	0	1	0	1	0	0	1	0
11	0	1	0	1	1	1	0	0	1	1
12	0	1	1	0	0	1	0	0	1	0
13	0	1	1	0	1	1	0	0	1	1
14	0	1	1	1	0	1	0	1	0	0
15	0	1	1	1	1	1	0	1	0	1
16	1	0	0	0	0	1	0	1	1	0
17	1	0	0	0	1	1	0	1	1	1
18	1	0	0	1	0	1	0	1	0	0
19	1	0	0	1	1	1	1	0	0	1

Table F.2.1

Operation	A	B	Overflow Carry	Sum
9 + 0	1001	0000		1001
9 + 1	1001	0001	1	0000
9 + 2	1001	0010	1	1000
9 + 3	1001	0011	1	0010
9 + 4	1001	0100	1	0011
9 + 5	1001	0101	1	0100
9 + 6	1001	0110	1	0101
9 + 7	1001	0111	1	0110
9 + 8	1001	1000	1	0111
9 + 9	1001	1001	1	1000

Table F.2.2