* 1. 9 bits are needed because 2^9 is 512 including zero.
  2. 112 more students can be added

1. 428­­10 = 1101 0110 02 and 42810 = 1AC16
2. B25EA4D16 = 13113651158
3. FF16 = 1111 11112  => -12710(S/M) => (a) 25510(U/S) => (b) -1(2’sC) => (c) -0(1’sC)
4. 3B5D16 => (a) 0011 1011 0101 11012 => (b) 1100 0100 1010 00112(2’sC) => (c) C4A316.
5. 1100 0010 0110 0112 => (a) 613316 => (b) a3(ASCII).
6. BED0 0000 16 => (a) 1011 1110 1101 0000 0000 0000 0000 00002 => (b) -0.4062510.
7. 5+43/64 => 0000 0101.1010112 Scientific.
8. 5+43/64 => (a) 0111 1111 1011 0101 1000 0000 0000 00002 => (b) 40B58000.
9. Unknown
10. (a) No truncation .00001+.00001=.00010 (b) No truncation = 1.00010.
11. (a) Truncation because there are more than 5 bits (b) Truncation carries over