CSCI-212

12/09/2021 ASSIGNMENT-9

Exercise 16.6

1. Ans (a). Computing s, e+127 and f.

$s = 0$

$e + 127 = 00000000_2$

$e = -127_{10}$

$f = 00000000000000000000000$

(b). Plugging these values into $N = (-1)^s \times 1.f \times 2^e$:-

$(-1)^0 \times 1.00\ldots00 \times 2^{-127}$ = A very small number $\neq 0.0$

2. (a) Ans: 3f800000

(b) Ans: bdcccccd

(c) Ans: 44fc0000

(d) Ans: 3b800000

(e) Ans: c5435500

(f) Ans: 3ea8f5c3

(g) Ans: bf26b9f4

(h) Ans: 4048f5c3

3. Ans:- (a) +2.0

(b) −1.0

(c) +0.0625

(d) −16.03125

(e) 100.03125

(f) 1.2

(g) 123.449997

(h) −54.320999