Q3. In fixed-point representation that expresses negative numbers by two's complement, which range of integers can be expressed with n bits? Here, the position of the binary point is to the right of the least significant bit.

a) -2^{n} through 2^{n-1}

b) $-2^{n-1}-1$ through 2^{n-1}

c) -2^{n-1} through 2^{n-1} - 1

d) -2^{n-1} through 2^{n-1}