

INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY DELHI

QUIZ 3

ECE 111 DIGITAL CIRCUITS

Date: March 14, 2022.

Max. Marks: 10

Time: 6:30 - 6:50 PM

1. A 3-bit offset binary code is given by the equivalence: $-4 = 000$, $-3 = 001$, $-2 = 010$, $-1 = 011$, $0 = 100$, $+1 = 101$, $+2 = 110$, $+3 = 111$. This scheme is used in Analog to Digital and Digital to Analog conversions. Give an approach to design an adder that adds two 3-bit offset-binary numbers and gives the 4-bit result in the 4-bit offset-binary format.