



COMSATS University Islamabad
Islamabad Campus
Department of Electrical and Computer Engineering
Midterm Exam

Class: BEE-2D
Subject: EEE-241/Digital Logic Design
Instructor: Fahad Sharief

Date: May 12, 2022
Time Allowed: 80 minutes
Marks: 25

Instructions: -Attempt all questions

Q No.1) Represent the following decimal number in base 2, 8 and 16.

(CLO-1) 5 marks

$(149.329)_{10}$

Q No.2) Perform gate level minimization of the following function using K-map for NOR gate implementation of the circuit diagram.

(CLO-2) 8 marks

$$F(w, x, y, z) = \sum(1, 3, 4, 6, 9, 11, 12, 14)$$

Q No.3) Design a combinational circuit such that when the binary input is 0, 1, 2, or 3, the binary output is four greater than the input and when the binary input is 4, 5, 6, or 7, the binary output is four less than the input.

(CLO-4) 7 marks

Q No.4) Determine the circuit diagram of Full-Adder.

(CLO-4) 5 marks

***** GOOD LUCK *****