

National University of Computer and Emerging Sciences, Lahore Campus



Course: Digital Logic Design
Program: BS (Computer Science)
Duration: 20 Minutes
Paper Date: 21-June-2021
Section: D
Exam: Quiz 3

Course Code: EE-227
Semester: Spring 2021
Total Marks: 15
Weight: 2 %
Page(s): 2
Reg. No.:

Instruction/Notes: Calculators are strictly not allowed in all exams
 Plagiarism will be dealt seriously causing an F in course

1. For the state table and state assignment shown, design a system using D flip flops.

Q	Q*		z	
	X=0	X=1	X=0	X=1
A	B	C	1	0
B	D	A	0	0
C	B	C	1	1
D	D	A	1	0

Q	Q ₁	Q ₂
A	0	0
B	0	1
C	1	1
D	1	0

2. Show state table and state diagram for following sequence.

A Mealy system whose output is 1 iff the last three inputs were 010 assuming overlapping is allowed.

X	1 1 0 1 0 1 0 1 0 0 1 0 0 1 0 0 1 1 0
Z	0 0 0 0 1 0 1 0 1 0 0 1 0 0 1 0 0 0 0 0