

National University



of Computer & Emerging Sciences Peshawar Campus

Student Name:	Roll No:
Stadent I tame:	Kon 110.

Program: <u>CS 20ABCD</u> Examination: Mid Total Marks: <u>64</u> Weightage: <u>30</u> Semester: SPRING – 2021 Time Allowed: 2:30 hour Date: Wednesday May 26th, 2021

Course: EE227 DIGITAL LOGIC DESIGN Instructor: Shakir

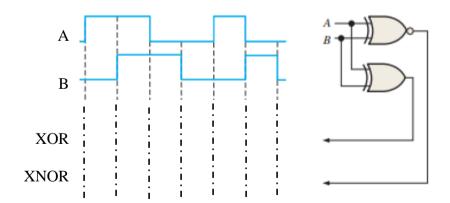
Question 1			Total	Instructor Signature
20 minutes			120 minutes	
10			64	

NOTE: Attempt all questions. *In case of an ambiguity in a question, make an assumption, write your assumption and carry on with the question.*

CALCULATORS ARE NOT ALLOWED

Question No. 1 (10 marks) (Estimated time: 20 minutes)

- a) (165.535)10 = (?)16 up to 7 stages using repeated division or multiplication by 16 [2]
- b) (93)16 + (DE)16=(?)16
- c) Subtract (-27)10 from (68)10 using 2's complements in 8 bits and cross verify each step using decimal number system. [2]
- d) Determine the output waveforms for the XOR gate and for the XNOR gate, given the input waveforms, A and B, in the given Figure [3]



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