

## National University



of Computer and Emerging Sciences Chiniot-Faisalabad Campus

## EE227 - Digital Logic Design

Quiz No. 4

| Name:    |          | Roll No.: |
|----------|----------|-----------|
| Section: | BSCS17-E | Marks: 15 |

## **Submission Guidelines:**

- 1. You should submit only one PDF document and all text should be handwritten. E quations, figures should be hand draw.
- 2. You must submit your solution before due time via Google Classroom. Submission submitt ed after the due time shall not be considered.
- 3. If you don't finish every part of a question, don't worry! You can still submit what you've done to get marks based on your efforts.
- 4. In case of copied or plagiarized solutions in exam Or If a student provided help to another s tudent during Quiz both will be awarded "0" Marks.
- 5. Viva of any student can be conducted by the instructor in case of any doubt.

## Question#01 (15 Marks)

Implement the circuit defined by the equation  $F(A,B,C,D) = \sum (1,4,6,7,8,11,12)$  using:

- a) 4-to-1 multiplexer and logic gates
- b) 8-to-1 multiplexer and logic gates
- c) 3-to-8 decoders and logic gates