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**EE227 – Digital Logic Design**

**Quiz No. 2**

**Name:** \_\_\_\_\_

**Roll No.:** \_\_\_\_\_

**Section: BEE18- A**

**Marks: 15**

**Submission Guidelines:**

1. You should submit only one PDF document and all text should be handwritten. Equations, figures should be hand draw. E
2. You must submit your solution before due time via [Google Classroom](#). Submission submitted 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 student 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 (10 Marks)**

Design a combinational circuit with three inputs,  $x$ ,  $y$ , and  $z$ , and three outputs,  $A$ ,  $B$ , and  $C$ . When the binary input is 0, 1, 2, or 3, the binary output is one greater than the input. When the binary input is 4, 5, 6, or 7, the binary output is two less than the input.

**Question#02 (5 Marks)**

Draw a NAND logic diagram that implement the complements of the following function

$$F(A, B, C, D) = \sum (0, 1, 2, 3, 6, 10, 11, 14)$$