**North South University**

Department of Computer Science and Engineering

Quiz-1, Section – 4, Sping’17

Course No: **CSE 231** Course Title: **Digital Logic Design**

Time: 40 min Full Marks: 40

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| 1. | Write down 20 consecutive numbers starting from 7 in a number system with base =8. If necessary, you can assume any English letters to represent a basic unique number | 5 |
| 2. | Find the 16’s complement of C3DF | 5 |
| 3. | Consider 1st two digits of your ID as a Decimal Number A and last two digits as Decimal Number B. Convert A and B into BCD and add them using BCD addition. | 5 |
| 4. | Perform subtraction on the following numbers using 2’s complement  100010-100110 | 7 |
| 5. | Simplify following Boolean expression to minimum no. of literals:  xy’ + y’z’ + x’z’ | 5 |
| 6. | Find the complement of the following expression:  (x+ y’ + z)(x’+ z’)(x + y) | 5 |
| 7. | Express following function in a) sum of minterm b) product of maxterm  (cd+b’c+bd’)(b+d) | 4+4 |
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