

Taibah University College of Computers science and Engineering		Date: Tue 20 Sep. 2022 Time: 9:00 — 9:30
تصميم المنطق الرقمي COE 211 YCSB2 & YCSB3 – Quiz 01		Total Marks: 10

1. Convert the signed decimal number -31 to binary equivalent 100001	2. What is the largest unsigned decimal number that can be expressed with 5-bits? What is the equivalent hexadecimal numbers? $* 11111 \Rightarrow 31$ $31 \text{ Decimal} \Rightarrow 1F H$
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Add the following numbers without converting them to decimal.

3. A001H + FFFFH $\begin{array}{r} A001 \\ + FFFF \\ \hline 1A000H \end{array}$	4. 1001 0001 + 0111 1101 (Binary) $\begin{array}{r} 1001\ 0001 \\ + 0111\ 1101 \\ \hline 10000\ 1110 \end{array}$
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Obtain the r's complement of the following numbers (Note that **r: Radix**)

5. 00010000 (Binary) 11110000 Binary	6. A25FH $5DA1 H$
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7. Represent decimal number -14 in signed binary form 10010	8. Represent decimal number +80 in 8-bit signed binary form $0101\ 0000$
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9. Represent decimal number 73 in BCD $0111\ 0011$	10. Represent decimal number 34 in Gray code $0010\ 0110$
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