

Practice Quiz 1***Closed Book and Notes***

1. In a somewhat desperate attempt to impress your “best friends from another major”, you tell them that you spent $\$100_2$ on a gift for your favorite ECE professor. In reality (expressed as a base 10 number), you spent:
 - (A) $\$1_{10}$
 - (B) $\$2_{10}$
 - (C) $\$4_{10}$
 - (D) $\$8_{10}$
 - (E) none of the above

2. The **unsigned hexadecimal** number $(537)_{16}$ is equivalent to the following **unsigned binary** number:
 - (A) $(101\ 11\ 111)_2$
 - (B) $(101\ 011\ 111)_2$
 - (C) $(101\ 0011\ 0111)_2$
 - (D) all of the above
 - (E) none of the above

3. The expression $X + X + X = X$ is an example of:
 - (A) involution
 - (B) idempotency
 - (C) associativity
 - (D) distributivity
 - (E) none of the above

4. The **dual** of the expression $X + Y \cdot Z$ is:
 - (A) $X \cdot Y + Z$
 - (B) $X' + Y' \cdot Z'$
 - (C) $X \cdot Y + X \cdot Z$
 - (D) $X' \cdot Y' + X' \cdot Z'$
 - (E) none of the above

5. The **complement** of the expression $X + Y \cdot Z$ is:
 - (A) $X \cdot Y + Z$
 - (B) $X' + Y' \cdot Z'$
 - (C) $X \cdot Y + X \cdot Z$
 - (D) $X' \cdot Y' + X' \cdot Z'$
 - (E) none of the above