

10. WHEN WILL METHOD WHATISIT CAUSE A STACK OVERFLOW (I.E., CAUSE COMPUTER MEMORY TO BE EXHAUSTED)?

```
PUBLIC STATIC INT WHATISIT(INT X, INT Y) {  
    IF(X > Y)  
        RETURN X*Y;  
    ELSE  
        RETURN WHATISIT(X-1,Y);  
}
```

- (A) ONLY WHEN  $X < Y$
- (B) ONLY WHEN  $X \leq Y$
- (C) ONLY WHEN  $X > Y$
- (D) FOR ALL VALUES OF X AND Y
- (E) THE METHOD WILL NEVER CAUSE A STACK OVERFLOW.



11. THE BOOLEAN EXPRESSION  $A[I] == MAX \ || \ !$   
( $MAX \ != \ A[I]$ ) CAN BE SIMPLIFIED TO

- (A)  $A[I] == MAX$
- (B)  $A[I] != MAX$
- (C)  $A[I] < MAX \ || \ A[I] > MAX$
- (D) TRUE
- (E) FALSE

12. SUPPOSE THE CHARACTERS 0,1,...,8,9,A,B,C,D,  
E,F ARE USED TO REPRESENT A HEXADECIMAL  
(BASE-16) NUMBER. HERE  $A = 10$ ,  $B = 11$ , ...,  $F = 15$ .  
WHAT IS THE LARGEST BASE-10 INTEGER THAT CAN  
BE REPRESENTED WITH A TWO-DIGIT HEXADECIMAL  
NUMBER, SUCH AS 14 OR 3A?

- (A) 32
- (B) 225
- (C) 255
- (D) 256
- (E) 272



13. CONSIDER A CLOWN CLASS THAT HAS A DEFAULT CONSTRUCTOR. SUPPOSE A LIST ARRAYLIST<CLOWN> LIST IS INITIALIZED. WHICH OF THE FOLLOWING WILL NOT CAUSE AN INDEXOUTOFBOUNDSEXCEPTION TO BE THROWN?

- (A) FOR (INT I = 0; I <= LIST.SIZE(); I++)  
    LIST.SET(I, NEW CLOWN());
- (B) LIST.ADD(LIST.SIZE(), NEW CLOWN());
- (C) CLOWN C = LIST.GET(LIST.SIZE());
- (D) CLOWN C = LIST.REMOVE(LIST.SIZE());
- (E) LIST.ADD(-1, NEW CLOWN());