

\*請在答案卡內作答

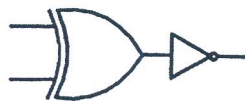
單選題 (1~20), 每題 3 分, 不倒扣

1. Given a decimal number  $(19.375)_{10}$ , please calculate its corresponding **binary value**.  
 (A) 10001.101 (B) 10011.011 (C) 1.011 (D) 1110.0101 (E) None of the above.

2. Let X and Y be two **8-bit signed integers**, where  $X = 01100001$ ,  $Y = 00001111$   
 The result of  $X+Y$  should be  
 (A) 11110000 (B) 00110000 (C) 01110000 (D) 10110000 (E) None of the above

3. Which one of the following circuits is NOT equivalent to a 2-input XNOR (exclusive NOR) gate?

(A)



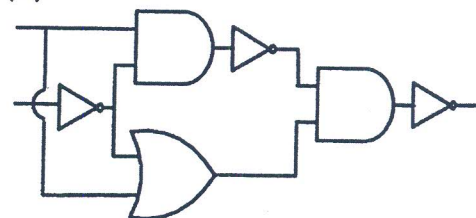
(B)



(C)



(D)



4. X and Y are two real numbers in IEEE single-precision floating-point format:

$X = 0\ 10000001\ 011100000000000000000000$ ,

$Y = 0\ 10000110\ 010000111100000000000000$

Calculate and show the result of  $X+Y$ .

(A) 0 10000110 010011110100000000000000

(B) 0 10000001 010000111100000000000000

(C) 0 10000110 010000111100000000000000

(D) 0 00000000 010011110100000000000000

(E) None of the above

5. An operating system can put resource restrictions on processes to prevent \_\_\_\_.

(A) starvation (B) synchronization (C) paging (D) deadlock

6. Which of the following is true regarding ADT (Abstract Data Types)?

(A) Computer languages do not provide ADT packages. To use an ADT, it is first implanted and kept in a library.

(B) A **stack** is a linear list in which data can only be inserted at one end, call the **rear**, and deleted from the other end, call the front.

(C) **Stacks** are familiar from everyday life. A line of people waiting for the bus at bus station is a queue.

(D) Queues are known as **last in, first out (LIFO)** data structure.

(E) None of the above

7. Which of the following is true regarding **File structures**?

(A) Compared to sequential, indexed and hashed file, only an sequential file can be accessed randomly.

(B) If we need to access a file, one record after another, from beginning to end, we will use a **random access** file structure.

(C) A **indexed file** uses a mathematical function to map the key to the address.

(D) none of the above

參考用

注意：背面有試題

