C 程式學習評量

學號：＿＿＿＿＿　　姓名：＿＿＿＿＿　　分數:＿＿＿＿＿

1. (10 分) 如何寫一行 C 程式片段將記憶體位址 0x9F5C 寫入 0x55AA 的數值

2. (10 分)寫出主程式的輸出為何?
   ```c
   #include <stdio.h>
   int main()
   {
     unsigned char a=38,b=49;
     a ^= b; b ^= a; a ^= b;
     printf("a=%d , b=%d\n", a,b );
     return 0;
   }
   ```

3. (10 分) 分別說明底下宣告的意義為何?
   ```c
   double (*pf) (int );
   double (*pf [5]) (int);
   double *pf [5];
   double (*pf)[5];
   double *pf (int );
   ```

4. (10 分) 定義 C 結構。The Colossus Airlines fleet consists of one plane with a seating capacity of 12. To write a C Code to define a seat using *struct* .The structure should hold a seat identification number, a marker that indicates whether the seat is assigned, the last name of the seat holder, and the first name of the seat holder.

5. (20 分) **實作題:** 試寫一個函式能取出一維陣列元素中的最大值與最小值
      void min_max(int *base, int size, int *max,int *min);

6. (20 分) **實作題:** 試寫一個函式能算出某一陣列元素的平均數，但排除大於 threshold 元素.
      int avg(int *base, int size, int threshold);

7. (20 分) **實作題:** Write a routine that rotates the bit pattern for the character c left b bits.
      unsigned char rotate_left(unsigned char c, unsigned char b)
      ex.　rotate_left(0xa3,2) returns 0x8e