

國立勤益科技大學九十九學年度研究所碩士班招生筆試試題卷  
所別：資訊工程系 組別：

科目：計算機程式

准考證號碼：□□□□□□□□ (考生自填)

考生注意事項：

一、考試時間 100 分鐘。

二、

三、

試題一： 試比較：〈20 分〉

1. While Loop 與 Do Loop。
2. Check Boxes 與 Radio Buttons。
3. Class 與 Interface。

試題二： 請寫出下列各小題的列印結果。〈20 分〉

(a) for ( x = 3 , x <= 20, x += 7 )

printf ("%d, ", x );

(b) for ( x = 1 , x <= 5, x += 5 )

printf ("%d, ", x );

(c) for ( x = 20 , x >= -10, x -= 6 )

printf ("%d, ", x );

(d) int i = 1, j = 2, k = 3, m = 2;

printf ("%d", k + m < j || 4 - j >= k );

(e) int i = 1, j = 2, k = 3, m = 2;

printf ("%d", !( j - m ) );

試題三： 試解釋何謂快速排序法(Quick Sort)。〈20 分〉

試題四： Rewrite the following nest for statements into nest while statements!  
(20 分)

```
for ( i = 0 ; i < n ; i++ )  
    for ( j = 0 ; j < n ; j++ )  
        B[i][j] = i * j;
```

試題五： Consider the following C code, what is the output of this code ? (20 分)

```
int M=0, N = 0;  
for ( M = 0 ; M < 5 ; M++ ) {  
    switch (M) {  
        case 3: N++;  
        case 2: N++; break;  
        default : N++;  
        case 1: N++; break;  
        case 4: N++;  
    }  
    printf( "%d\n", N );  
}
```

試題六： Consider the following C code, if the start memory address of array WW is 1000, what is the output of this code ? (20 分)

```
main() {
    int WW[10];
    WW[0] = 55 ; WW[1] = 66 ;

    AA( &WW );
    BB( &WW );  BB( *WW );
    CC( &WW );  CC( *WW );

    ....
}
AA ( int aa[] ){ printf("%d\n", aa[0]+1 ); }
BB ( int bb ) { printf("%d\n", bb+1 ); }
CC ( int cc[] ){ printf("%d\n", cc+1 ); }
```

試題七： Consider the following java code, what is the output of this code ? (20 分)

```
String[][] exam = { { "A", "B", "C", "D", "E", "F", "G"},
                    {"Zero"}, {"One"}, {"Two"}, {"Three"} };
A: for (String[] str1: exam){
    B: for (String str2: str1) {
        System.out.println(exam[0][str2.length()]);
        continue A;
    }
    break A;
}
```

試題八： Write a C (or C++ or Java) recursive function that return value 0/1 if input variable isn't/is a prime number. You must also show the function call. (30 分)

試題九： 試設計一程式可產生 1 至 49 之間的整數亂數 10000 次，並將出現次數為前六名的亂數值及其出現次數印出。(請註明使用之程式語言) (30 分)