

淡江大學 105 學年度進修學士班轉學生招生考試試題

系別：資訊工程學系三年級

科目：程式語言

20-1

考試日期：7月20日(星期三) 第4節

本試題共 10 大題， 3 頁

本試題雙面印刷

1. (5%) Given a C program as follows:

```
int x = 1;
printf("%s", "x = ");
switch (x)
{
    case 1: printf("%s", "1");
    case 2: printf("%s", "2");
    case 3: printf("%s", "3");
    break;
}
```

What will be printed on screen?

2. (5%) Given a C program as follows,

- 1) int c=5, d=6;
- 2) printf ("%d \n", c++);
- 3) printf ("%d \n", ++d);

Line 2 will print ____ on screen, line 3 will print ____ on screen.

3. (5%) Given a JAVA program as follows,

```
class BreakWithLabelDemo {
    public static void main(String[] args) {
        int[][] arrayOfInts = { { 32, 87, 3, 589 }, { 12, 1076, 2000, 8 }, { 622, 127, 77, 955 } };
        int searchfor = 77;
        int I = 0; int j = 0;
        boolean foundIt = false;
        search:
            for ( i = 0; i < arrayOfInts.length; i++) {
                for ( j = 0; j < arrayOfInts[i].length; j++) {
                    if (arrayOfInts[i][j] == searchfor) {
                        foundIt = true;
                        break search;
                    }
                }
            }
    }
}
```

foudIt will be set to true when i = ____, and j = ____.

背面尚有試題

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4. (5%) Given a C program,

```
F (int x, int y)
{ y = x*123; }

int main(void)
{   int x = 2, y = 3;
    F(x, y);
    printf( "%d", y);
    return 0; }
```

What will be printed on screen?

5. (10%) Given a C code “average = (count == 0)? 0 : sum / count;”

What is the code if we transfer it as “if-else” expression?

6. (10%) Please answer the following,

- (a) The decimal value of $0xE9_{(16)}$
- (b) The binary value of $33_{(10)}$
- (c) The hexadecimal value of $131_{(10)}$
- (d) The hexadecimal value of $11011001_{(2)}$

7. (10%) What are the three main features in object-oriented programming?

8. (10%) Please explain what is operator overloading?

9. (20%) Please fill the following blanks <a> to <e> of the code of multiplication table (99 乘法表),

```
#include<stdio.h>
int main (void)
{
    int <a>;
    for ( <b>; <c>; i++)
        for(j=0 ; j < 9 ; j++)
            printf ( “ %d * %d = %d \n ”, i+1, <d>, <e> );
}
```

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20-3

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10. (20%) Write a program to input an integer and print if it is odd/even and prime/nonprime.

Print on screen

Enter an interger : 43

43 is odd ; prime.

Enter an interger : 78

78 is even ; nonprime.