

西南大学 计算机与信息科学学院(软件学院)

	密 封 线
学号	
姓名	
班	
年级	
专业	
学院	

命题教师：

教研室或系负责人：

主管院长：

年 月 日

《 C 程序设计 》课程试题 【A】卷

2018～2019学年 第2学期								期末 考试			
考试时间		120 分钟	考核方式	闭卷笔试	学生类别		本科		人数		
适用专业或科类		软件工程						年级	2018级		
题号	一	二	三	四	五	六	七	八	九	十	合计
得分											
签名											

阅卷须知：阅卷用红色墨水笔书写，得分用阿拉伯数字写在每小题题号前，用正分表示，不得分则在题号前写 0；大题得分登录在对应的分数框内；统一命题的课程应集体阅卷，流水作业；阅卷后要进行复核，发现漏评、漏记或总分统计错误应及时更正；对评定分数或统分记录进行修改时，修改人必须签名。

特别提醒：学生必须遵守课程考核纪律，违规者将受到严肃处理。

一、Multiple Choice (20 points)

- In C language, _____ represents logical value “true”.
 A) true
 B) t or y
 C) any nonzero value
 D) 0
- Supposing the input statement: `scanf(“a=%d,b=%d,c=%d”,&a,&b,&c);`, which input format can assign 1, 3, 2 to the variables of a, b, c, respectively.
 A) 132 ✓ B) 1,3,2 ✓ C) a=1 b=3 c=2 ✓ D) a=1,b=3,c=2 ✓
- Suppose we have define: `int max(int x,int y){return x>y?x:y;}`, which statement contains illegal use of function max?
 A) `max(3,4,5);` B) `max(3,5);`
 C) `max(max(3,4),5);` D) `printf(“%f”,max(3.4,5));`
- Suppose we have defined: `char s[]=”Hello, world.”`, what is the result of operations: `sizeof(s)` and `strlen(s)`:
 A) 13,13 B) 14,13 C) 14,14 D) 13,14
- Given these definitions and declarations for a structure:

```
struct Xxx{ int aa; double bb;};
struct Xxx mm, *pp;
```

Assuming the variable pp has been initialized, _____ is true in the following statements.

A). pp =mm; B). mm->bb=54.2; C). (*mm).bb=45,8; D). pp->aa=6;

6. Suppose we have defined: int arr[10]; int* p=arr, which statement CANNOT receive an input value to array element arr[3]:

A) scanf(“%d”,arr[3]);

B) scanf(“%d”,arr+3);

C) scanf(“%d”,p+3);

D) scanf(“%d",&p[3]);

7. In the statement while(x), choose the equivalent expression for the x.

A) x= =0 B) x= =1 C) x!=1 D) x!=0

8. Choose the wrong definition for the character strings.

A) char str[5]= “QUEST”; B) char str[]= “QUEST”;

C) char *str= “QUEST”; D) char str[]={‘Q’, ‘U’, ‘E’, ‘S’, ‘T’, ‘\0’};

9. For the 2-dimensional array int b[][3]={ {1,0,-1}, {10,12}, {8,3,9}, {0} }; the value for the b[2][1] is _____.

A) 8

B) 5

C) 3

D) 12

10. For the following codes: int z=5, *p=&z; the value of the *p is _____.

A) the address of c;

B) unknown value;

C) the address of p;

D) 5.

二、True or false (10 Points)

1. The following variable names are legal: cat, dogs2, ID_number, stuName

2. The statement printf(“\nnn”); will create three blank lines.

3. Long is not basic data type provided in C:

4. The statement printf(“%-3d”,123); displays -123.

5. You must create a link between an external disk file and a file pointer before you can read your input data.

6. A for loop can always be rewritten as a while loop.

7. Only double type pointer variable can be used to store the address of a double type

variable.

8. Operator %= can only be applied to integers.

9. A programmer-defined function must be written before the main() function.

10. The subscript of the first element of a 1-D C array is 1.

三、 Write output of the following programs (30 Points)

1. (4 points)

```
void main(void){
    int y=8,x=7;
    printf("%d,%d\n", ++x, y++);
}
```

2. (5 points)

```
void main(void){
    int i, j, m = 0;
    for(i=1; i<=15; i+=5)
        for(j=3; j<=19; j+=3)
            m++;
    printf("%d\n", m);
}
```

3. (6 points)

```
void main(void){
    int n = 8;
    while (n > 5)
    {
        n--;
        printf("%d", n);
    }
}
```

4. (9 points)

```
void f1(char a,char b[],char *c){
    a='a';
```

密

```
strcpy(b,"bcde");
b[0]=a;
c[2]=*b+5;
}
void main(void){
    char x[25]="9876",*px;
    fl('1',x,&x[0]);
    printf("1. X=%s\n",x);
    fl('2',x,&x[1]);
    printf("2. X=%s\n",x);
    px=x;
    fl(*(px+1),x+2,px+2);
    printf("3. X=%s\n",x);
}
```

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5. (6 points)

```
void fun(int s, int *a, int *b){
    int m;
    *a=0; *b=0;
    while(s)
    {
        m=s%10;
        *a=*a+m;
        *b=*b+m*m;
        s=s/10;
    }
}
```

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```
void main(void){
    int x,a,b;
    scanf("%d",&x);
    fun(x,&a,&b);
    printf("a=%d,b=%d\n",a,b);
}
```

If we enter 2198 when the programming is running. Write the output of this program.

四、Programming (40 points)

1. Write a function `isPrime()` to determine if a given integer, `N`, is a prime number or not. Use the function `isPrime()` in `main()` to output prime numbers between 1000 and 2000. (10 points)
2. Write a function `solveQuatra()` to solve the quadratic equation $ax^2+bx+c=0$. The function only deals with real result and returns 0 when the result is imaginary. For real result, the values of `x` are returned by output parameter. You should also write a `main()` function to test the function `solveQuatra()`. (15 points).
3. Write a function `sortString()` to sort character strings. Input 5 strings by keyboard and call `sortString()` in the `main()` function, then output the sorted strings. Hints: You may solve this issue by pointer array and use the library function `strcmp()`. (15 points)

Answer Sheet

一、Choose the right answer (20 points)

1-5	
6-10	

二、True or false (10 points)

1-5	
6-10	

三、Write output of the following programs (30 points)

1.

2.

3.

4.

5.

四、Programming (40 points)

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