

C语言程序设计期末题答案

一、单选

1	2	3	4	5	6	7	8	9	10
A	B	D	C	D	C	D	B	C	A

二、判断

1	2	3	4	5	6	7	8	9	10
√	×	×	√	×	×	×	√	×	√

三、填空

- 1. 顺序结构、选择结构、循环结构
- 2. 0、9
- 3. &、*
- 4. $n/100$ 、 $(n/10)\%10$ 、 $n\%10$

四、程序阅读

- 1. 12 17
- 2. $s=30$
- 3. 4 5
5 4

五、程序填空

- 1. `a * 100 + b * 10 + c`、`a * a * a + b * b * b + c * c * c`
- 2. `m % i == 0`、`flag = 0`、`prime(n)`

六、程序编写

```
1. 1  #include <math.h>
2    #include <stdio.h>
3
4    void solve_quadratic_equation(double a, double b, double c) {
5        double discriminant = b * b - 4 * a * c;
6        if (discriminant > 0) {
7            double root1 = (-b + sqrt(discriminant)) / (2 * a);
8            double root2 = (-b - sqrt(discriminant)) / (2 * a);
```

```

9     printf("Two real roots: %.2f and %.2f\n", root1, root2);
10 }
11 else if (discriminant == 0) {
12     double root = -b / (2 * a);
13     printf("One real root: %.2f\n", root);
14 }
15 else {
16     printf("No real roots\n");
17 }
18 }
19
20 int main() {
21     double a, b, c;
22
23     printf("Enter coefficients (a, b, c): \n");
24     scanf("%lf %lf %lf", &a, &b, &c);
25
26     if (a == 0) {
27         printf("a cannot be zero.\n");
28         return 1;
29     }
30
31     solve_quadratic_equation(a, b, c);
32
33     return 0;
34 }

```

2.

```

1  #include <stdio.h>
2
3  int main() {
4      int sum_1 = 0, sum_2 = 0;
5
6      for (int i = 1; i <= 10; i++) {
7          sum_1 += i;
8          sum_2 += i * i;
9      }
10
11     printf("Sum: %d\n", sum_1 + sum_2);
12
13     return 0;
14 }

```

3.

```

1  #include <stdio.h>
2
3  void bubble_sort(int arr[], int n) {
4      for (int i = 0; i < n - 1; i++) {
5          for (int j = 0; j < n - i - 1; j++) {
6              if (arr[j] > arr[j + 1]) {
7                  int temp = arr[j];
8                  arr[j] = arr[j + 1];
9                  arr[j + 1] = temp;
10             }
11         }
12     }
13 }

```

```
12     }
13 }
14
15 int main() {
16     int a[10];
17
18     printf("Enter 10 integers:\n");
19     for (int i = 0; i < 10; i++) {
20         scanf("%d", &a[i]);
21     }
22
23     bubble_sort(a, 10);
24
25     printf("Sorted array in descending order:\n");
26     for (int i = 0; i < 10; i++) {
27         printf("%d ", a[i]);
28     }
29     printf("\n");
30
31     return 0;
32 }
```