

Assessment Title :

Structures and arrays

Number of Attempts :

1 out of unlimited

Duration :

10s

Start Time :

24-Nov-2016 12:29 PM

Total Marks :

0 out of 10

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1) What is the output of the following program?

```

#include <stdio.h>

typedef struct {
    int x, y;
} S;

void f(S s, S t);

int main(void) {
    S s = {2, 3}, t = {4, 5};

    f(s, t);
    printf("%d %d\n", t.x, t.y);
    return 0;
}

void f(S s, S t) {
    S temp;

    temp = s;
    s = t;
    t = temp;
    return;
}

```

- ☐ 2 3
- ☐ 3 2
- ☐ 4 5
- ☐ 5 4

Correct Answer : 4 5

Your Marks : 0 out of 1

2) What is the output of the following program?

```

#include <stdio.h>

typedef struct {
    int x, y;
} S;

void f(S s, S t);

int main(void) {
    S s = {2, 3}, t = {4, 5};

    f(s, t);
    printf("%d %d\n", t.x, t.y);
    return 0;
}

void f(S s, S t) {
    int temp;

    temp = s.x;
    t.x = s.y;
    t.y = temp;
    return;
}

```

- ☐ 2 3
☐ 3 2
☐ 4 5
☐ 5 4

Correct Answer : 4 5

Your Marks : 0 out of 1

3) What is the output of the following program?

```

#include <stdio.h>

typedef struct {
    int i;
    double d;
} S;

void f(S s);

int main(void) {
    S s;

    s.i = 5;
    s.d = 2.5;
    f(s);
    printf("%d %f\n", s.i, s.d);
    return 0;
}

void f(S s) {
    s.i = s.i + 1;
    s.d = s.d - 1.0;
    return;
}

```

- ☐ 5 1.500000
☐ 5 2.500000
☐ 6 1.500000
☐ 6 2.500000

Correct Answer :	5 2.500000
Your Marks :	0 out of 1

4) What is the output of the following program?

```
#include <stdio.h>

typedef struct {
    int i;
    double d;
} S;

void f(S *s);

int main(void) {
    S s;

    s.i = 5;
    s.d = 2.5;
    f(&s);
    printf("%d %f\n", s.i, s.d);
    return 0;
}

void f(S *s) {
    (*s).i = (*s).i + 1;
    (*s).d = (*s).d - 1.0;
    return;
}
```

- ☐ 5 1.500000
- ☐ 5 2.500000
- ☐ 6 1.500000
- ☐ 6 2.500000

Correct Answer : 6 1.500000

Your Marks : 0 out of 1

5) What is the output of the following program fragment?

```
int x[5] = {1, 2, 3, 4, 5}, i;

for (i = 0; i < 4; i++) {
    x[i] = x[i+1];
}
x[4] = x[0];
printf("%d %d %d %d %d\n", x[0], x[1], x[2], x[3], x[4], x[5]);
```

- ☐ 2 3 4 5 1
- ☐ 2 3 4 5 2
- ☐ 2 3 4 5 5
- ☐ 5 4 3 2 1

Correct Answer : 2 3 4 5 2

Your Marks : 0 out of 1

6) What is the output of the following program fragment?

```
int x[5] = {1, 2, 3, 4, 5}, i;  
  
x[4] = x[0];  
for (i = 0; i < 4; i++) {  
    x[i] = x[i+1];  
}  
printf("%d %d %d %d %d\n", x[0], x[1], x[2], x[3], x[4], x[5]);
```

☐ 2 3 4 1 1

☐ 2 3 4 5 1

☐ 5 2 3 4 1

☐ 5 4 3 2 1

Correct Answer : 2 3 4 1 1

Your Marks : 0 out of 1

7) Given the following function.

```
void f(int a, int b[]) {  
    a++;  
    b[0]++;  
    return;  
}
```

What is the output of the following program fragment?

```
int x = 7, y[1] = {11};  
  
f(x, y);  
printf("%d %d\n", x, y[0]);
```

☐ 7 11

☐ 7 12

☐ 8 11

☐ 8 12

Correct Answer : 7 12

Your Marks : 0 out of 1

8) Given the following program:

```

#include <stdio.h>

int f(int a[], int x);

int main(void) {
    int x[10] = {5, 23, 93, 74, 56, 22, 66, 44, 97, 13}, n;

    scanf("%d", &n);
    printf("%d\n", f(x, n));
    return 0;
}

int f(int a[], int x) {
    int i;

    for (i = 0; i < 10; i++) {
        if (a[i] == x) {
            return i;
        }
    }
    return i;
}

```

Assuming the user enters any integer from 0 to 100 inclusive, what is the largest possible output value?

- ☐ 9
☐ 10
☐ 11
☐ None of the above.

Correct Answer :	10
Your Marks :	0 out of 1

9) What is the output of the following program?

```

#include <stdio.h>

void f(int a[], int x);

int main(void) {
    int x[10] = {5, 13, 22, 23, 44, 56, 66, 74, 93, 97}, n;

    f(x, 57);
    return 0;
}

void f(int a[], int x) {
    int i = 0, j = 9, k;

    k = (i + j) / 2;
    while (i <= j) {
        if (a[k] == x) {
            return;
        }
        if (a[k] < x) {
            i = k + 1;
        } else {
            j = k - 1;
        }
        k = (i + j) / 2;
    }
    printf("%d %d %d\n", i, j, k);
    return;
}

```

- ☐ 5 6 5
☐ 6 5 5
☐ 6 6 6
☐ 7 6 6

Correct Answer : 6 5 5

Your Marks : 0 out of 1

10) What is the output of the following program?


```

#include <stdio.h>

int f(int a[], int n);

int main(void) {
    int a[5] = {1, 0, 4, 2, 3};

    printf("%d\n", f(a, 5));
    return 0;
}

int f(int a[], int n) {
    int i, t, x, y = 0;

    do {
        x = 0;
        for (i = 0; i < n - 1; i++) {
            if (a[i] < a[i + 1]) {
                t = a[i];
                a[i] = a[i + 1];
                a[i + 1] = t;
                x = 1;
            }
        }
        y++;
    } while (x != 0);
    return y;
}

```

- ☐ 1
☐ 2
☐ 3
☐ 4

Correct Answer : 4

Your Marks : 0 out of 1

✖ Close