

Basic C Programming

Q1 What will be the output of the program?

```
#include <stdio.h>
int main()
{
    printf("%f\n", 2.5 + 1 * 7 % 2 / 4);
    return 0;
}
```

- A. 2.500000
- B. 2.750000
- C. 3.375000
- D. 3.000000

Answer: (

~~B~~ A

$$2.5 + \underbrace{0.25}_{= 0} = 2.5$$

as int division gives int

Q2 What will be the output of the program?

```
#include <stdio.h>
int main()
{
    char c1, c2;
    c1 = 'A' + '8' - '4';
    c2 = 'A' + '8' - '5';
    printf("%c, %d\n", c1, c2);
    return 0;
}
```

- A. E, 68
- B. D, 69
- C. E, D
- D. Undefined

Answer: (

~~C~~ A

Q3 What will be the output of the program?

```
#include <stdio.h>
int main()
{
    double d; float f; long l; int i;
    i = f = l = d = 20 / 3;
    printf("%d, %ld, %f, %f\n", i, l, f, d);
    return 0;
}
```

- A. 6, 6, 6.000000, 6.000000

- B. 6,6,6.666667,6.666667
 C. 6,6,6.000000,6.666667
 D. 6,6,6.7,6.000000

$20/3 = 6$ due to integer division so we get integer value 6

Answer: (B)

A

Q4 What will be the output of the program?

```
#include <stdio.h>
int main()
{
```

```
    int a;
```

```
    a=1+2*5-3;
```

```
    printf("%d",a);
```

```
    a=3+4%5-6;
```

```
    printf("%d",a);
```

```
    a=3*4%-6/5;
```

```
    printf("%d",a);
```

```
    a=(5+3)%4/2;
```

```
    printf("%d\n",a);
```

```
    return 0;
```

```
}
```

A. 8,1,1,1

B. 8,1,0,0

C. 8,0,1,1

D. 8,0,1,0

Answer: (B)

✓

$$8 = 1 + 10 - 3$$

$$1 = 3 + 4 - 6$$

$$0 = 12 \div 6 / 5 = 0 / 5$$

$$0 = 8 \div 4 / 2 = 0 / 2$$

Q5 What will be the output of the program?

```
#include <stdio.h>
int main()
{
```

```
    int m=12,n=34;
```

```
    printf("%d%d",m++,++n);
```

```
    printf("%d%d\n",n++,++m);
```

```
    return 0;
```

```
}
```

A. 12353514

B. 12353513

C. 12343514

D. 12343513

Answer: (B)

A

$$12 \quad 13$$

$$14$$

Q6 What will be the output of the program?

```
#include <stdio.h>
int main()
{
    int n=2;
    n+=n-=n*n;
    printf("%d\n",n);
    return 0;
}
```

- A. 2
- B. 0
- C. -2
- D. -4

Answer: (~~B~~) ~~D~~

$$n = n + n = n + n - (n \times n)$$
$$4 - 4 =$$

$$n + = (n - = n \times n) \Rightarrow n + = (2 - 2 \times 2)$$

$$\Rightarrow n + = (2 - 4) \Rightarrow n - = -2 \Rightarrow n = -2 + -2 = -4$$

Q7 What will be the output of the program?

```
#include <stdio.h>
int main()
{
    double a=1,b;
    b=a+5/2;
    printf("%f\n",b);
    return 0;
}
```

- A. 1
- B. 3
- C. 3.000000
- D. 3.500000

Answer: (~~C~~)

$$b = 3$$

Q8 What will be the output of the program, after executing the following input:

98.76543210<CR> [Note: <CR> = the return key on the keyboard]

```
#include <stdio.h>
int main()
{
    int a; float b,c;
    scanf("%2d%3f%4f",&a,&b,&c);
    printf("%d,%f,%f\n",a,b,c);
}
```

```

    return 0;
}
A. 98,765,4321
B. 10,432,8765 x
C. 98,765.000000,4321.000000
D. 98,765.0,4321.0

```

6

Answer: (C) ✓

Q9 What will be the output of the program, after executing the following input:

10 20 30<CR>

```

#include <stdio.h>
int main()
{
    int i=0,j=0,k=0;
    scanf("%d%d%d",&i,&j,&k);
    printf("%d%d%d\n",i,j,k);
    return 0;
}

```

- A. 201030
- B. 102030
- C. 123
- D. 302010

Answer: (B) ✓

Q10 What will be the output of the program, if executing the following inputs:

123<CR>

45678<CR>

```

#include <stdio.h>
int main()
{
    char c1,c2,c3,c4,c5,c6;
    scanf("%c%c%c%c",&c1,&c2,&c3,&c4);
    c5=getchar();
    c6=getchar();
    putchar(c1);
    putchar(c2);
    printf("%c%c\n",c5,c6);
    return 0;
}

```

4 1 2 3 <CR>

5

45

- A. 1267
- B. 1256

C. 1278

D. 1245

Answer: (**D**)