

C++ Institute

CPA-21-02 Exam

CPA - C++ Certified Associate Programmer

Version: 4.0

Topic 1, Volume A

Question: 1

What will the variable "age" be in class B?

```
class A {
    int x;
protected:
    int y;
public:
    int age;
    A () { age=5; };
};

class B : public A {
    string name;
public:
    B () { name="Bob"; };
    void Print() {
        cout << name << age;
    }
};
```

- A. public
- B. private
- C. protected
- D. None of these

Answer: A

Explanation:

Question: 2

What happens when you attempt to compile and run the following code?

```
#include <iostream>
#include <string>

using namespace std;
```

```

class complex{
    double re, im;
public:
    complex() : re(1),im(0.4) {}
    complex operator?(complex &t);
    void Print() { cout << re << " " << im; }
};

complex complex::operator? (complex &t){
    complex temp;
    temp.re = this?>re ? t.re;
    temp.im = this?>im ? t.im;
    return temp;
}

int main(){
    complex c1,c2,c3;
    c3 = c1 ? c2;
    c3.Print();
}

```

- A. It prints: 1 0.4
- B. It prints: 2 0.8
- C. It prints: 0 0
- D. It prints: 1 0.8

Answer: C

Explanation:

Question: 3

What happens when you attempt to compile and run the following code?

```

#include <iostream>
using namespace std;
class complex{
    double re;
    double im;
public:
    complex() : re(0),im(0) {}
    complex(double x) { re=x,im=x;};
    complex(double x,double y) { re=x,im=y;}
    void print() { cout << re << " " << im;}
};

```

```
int main(){
    complex c1;
    c1 = 3.0;
    c1.print();
    return 0;
}
```

- A. It prints: 0 0
- B. It prints: 1 1
- C. It prints: 3 3
- D. Compilation error

Answer: C

Explanation:

Question: 4

What happens when you attempt to compile and run the following code?

```
#include <iostream>

using namespace std;

void fun(int);

int main()
{
    int a=0;
    fun(a);
    return 0;
}

void fun(int n)
{
    if(n < 2)
    {
        fun(++n);
        cout << n;
    }
}
```

- A. It prints: 21
- B. It prints: 012
- C. It prints: 0
- D. None of these

Answer: A

Explanation:

Question: 5

What happens when you attempt to compile and run the following code?

```
#include <iostream>
using namespace std;
```

```
int s(int n);
```

```
int main()
{
    int a;
    a = 3;
    cout << s(a);
    return 0;
}
```

```
int s(int n)
{
    if(n == 0) return 1;
    return s(n-1)*n;
}
```

- A. It prints: 4
- B. It prints: 6
- C. It prints: 3
- D. It prints: 0

Answer: B

Explanation: