AICPA

CPA Exam

CPA - C++ Certified Associate Programmer

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

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

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

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

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

Question: 6

What will be the output of the program?

```
#include <iostream>

using namespace std;

int fun(int);

int main()
{
    cout << fun(5);
    return 0;
}


int fun(int i)
{
    return i*i;
}
```

A. 25
B. 5
C. 0
D. 1

Answer: A

Question: 7

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

```
#include <iostream>

using namespace std;

#define FUN(arg) if(arg) cout<<"Test";

int main()
{
   int i=1;
   FUN(i<3);
   return 0;
}
```

A. It prints: 0
B. It prints: T
C. It prints: T0
D. It prints: Test

Answer: D

Question: 8

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

```
class A {
      int x;
protected:
      int y;
public:
      int age;
};


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

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

Answer: B

Question: 9

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

```
#include <iostream>

using namespace std;

int main()
{
 float x=3.5,y=1.6;
 int i,j=2;
 i = x + j + y;
 cout << i;
 return 0;
}
```

A. It prints: 7
B. It prints: 6
C. It prints: 7,1
D. Compilation error

Answer: A

Question: 10

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

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

int main(){
  int i = 1;
  if (i==1) {
     cout << i;
  } else {
     cout << i-1;
  }
  return 0;
}
```

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

Answer: B

Question: 11

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. Garbage value

Answer: B

Question: 12

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

```
#include <cstdlib>
#include <iostream>

using namespace std;
```

```
float* sum(float a,float b);

float* sum(float a,float b)
{
      float *f = new float;
      *f = a+b;
      return f;
}

int main()
{
      float a,b,*f;
      a = 1.5; b = 3.4;
      f = sum(a,b);
      cout<<*f;

      return 0;
}
```

A. It prints: 0
B. It prints: 4.9
C. It prints: 5
D. It prints: 4

Answer: B

Question: 13

Which statement should be added in the following program to make work it correctly?

```
using namespace std;
int main (int argc, const char * argv[])
{
  cout<<"Hello";
}
```

A. #include<stdio.h>
B. #include<stdlib.h>
C. #include <iostream>
D. #include<conio.h>

Answer: C

Question: 14

What is the output of the program?

```
  #include <iostream>
```

```
using namespace std;

int main()
{
    int tab[4]={10,20,30,40};
    tab[1]=10;
    int *p;
    p=&tab[0];

    cout<<*p;
    return 0;
}
```

A. It prints: 10
B. It prints: 20
C. It prints: 11
D. It prints: 30

Answer: A

Question: 15

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

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

int fun(int x) {
  return 2*x;
}

int main(){
  int i;
  i = fun(1) & fun(0);
  cout << i;
  return 0;
}
```

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

Answer: A