CODE WAR 2k17

Qualifiers Round Language : C++ language

Time: 15 min Marks: +2 for correct

Name: email: (for mcq) -1 for Incorrect

\*Tick the right answer for the objective questions. Write the code snippet only, wherever asked not the entire code.

Q1. Output of the code will be

#include<iostream> A. Compiler Error

using namespace std; B. Runtime Error

class Point { C. “Constructor called”

Point() { cout << "Constructor called"; } D. Segmentation fault

};

int main()

{

Point t1;

return 0;

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q2. #include<iostream>

using namespace std; A. Compile Error because unknown syntax X a={10}

class X B. 10 10

{ C. Segmentation fault

public: D. None of the above

int x;

};

int main()

{

X a = {10};

X b = a;

cout << a.x << " " << b.x;

return 0;

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q3. Look at the code given below:

int ar[]={2,2,4,5,6,7,7,9,8};

int size=sizeof(ar)/sizeof(int); This is the standard example model of how the std::remove()

int data=2; of the algorithm header is defined (the real one uses generic

int t=0; templates). Identify the function definition.

for(int i=0;i<size;i++) If the function is fine then write the final state of the array?

{ If not fix the part that has the error. (only give a code snippet)

if(ar[i]!=data)

{

ar[t]=ar[i];

}

t++;

}

1.

Q4. #include<iostream>

#include<stdlib.h> What will happen for this one?

using namespace std; A. Constructor called B. Nothing printed

class Test C. Compilation error since malloc is exclusive to C

{ D. Runtime error due to illegal memory allocation

public:

Test()

{ cout << "Constructor called"; }

};

int main()

{

Test \*t = (Test \*) malloc(sizeof(Test));

return 0;

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q5. #include <iostream>

using namespace std;

template <class T> The output will be:

class Test A. 0 0

{ B. 1 1

private: C. 2 1

T val; D. 1 0

public:

static int count;

Test() { count++; }

};

template<class T>

int Test<T>::count = 0;

int main()

{

Test<int> a;

Test<int> b;

Test<double> c;

cout << Test<int>::count <<” ”;

cout << Test<double>::count << endl;

return 0;

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q6. #include <iostream>

using namespace std;

template<int n> struct funStruct

{

static const int val = 2\*funStruct<n-1>::val; So what will be the output ?

};

template<> struct funStruct<0>

{ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

static const int val = 1 ;

};

int main()

{

cout << funStruct<10>::val << endl;

return 0;

}

2.

Q7. Suggest a data type to store this number in C++

**18446744073709551615** Ans. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q8.

#include <iostream>

#include<string.h> what will be the output? If you find any error in the code you can fix

using namespace std; it.

int main()

{

char ar[]="hello";

char ar2[]="hello";

if(strcmp(ar,ar2))

cout<<"equal";

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q9.

#include <iostream>

using namespace std; Output will be ?

template <int i> A. 10

void fun() B. 20

{ C. Runtime error

i = 20; D. Compile time error

cout << i;

}

int main()

{

fun<10>();

return 0;

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q10. Assume int and pointers have size of 4bytes.

class Test

{

static in x; What will be the output of this programme?

int \*ptr;

int y;

}

int main()

{

Test t;

cout<<sizeof(t)<<” ”;

cout<<sizeof(Test \*);

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

3.

Q11 #include<iostream>

using namespace std;

class A

{

int i;

public: Output of the programme is ?

A(int ii = 0) : i(ii) {} A. Compilation Error

void show() { cout << i << “ ”; } B. 10 20

}; C. 20 20

D. 10 10

class B

{

int x;

public:

B(int xx) : x(xx) {}

operator A() const { return A(x); }

};

void g(A a)

{

a.show();

}

int main()

{

B b(10);

g(b);

g(20);

return 0;

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q12 char str[]="hello"; ( \*\* hidden bonus mark)

char str2[6];

char \*a=str,\*b=str2;

// Write one line of code to copy the str to str2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

cout<<str2;

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q13. int \*a() int \*b() int \*c()

{ int x= 10; { int \*px; { int \*px;

return (&x); px=10; px= (int \*)malloc(sizeof(int));

} return (&px); \*px=10;

} return (px);

}

Which one of the above three functions are likely to cause problems with pointers ?

1. Only a
2. Only a and c
3. Only b and a
4. Only c

---------------------------------------------------------------------------------------------------------------------------------------------------------

4.

Q14. #include<iostream>

using namespace std; Write the output of the program?

int x = 1;

void fun()

{

int x = 2;

{

int x = 3; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

cout << ::x << endl;

}

}

int main()

{

fun();

return 0;

}

-------------------------------------------------------------------------------------------------------------------------------------------------------------

Q15. Look at the algorithm given:

What will be the state of reversenum after this . Is it the right output?

int number=234; if not suggest the fix

int t=number,reversenum=0;

while(t!=0)

{

reversenum=reversenum\*10+t/10;

t%=10;

}