

Sample Paper

FINAL TERM EXAMINATION

Fall 2022

CS201 – Introduction to Programming

Solved By KST Learning

Contact for Paid Services

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Time: 90 min

Marks: 60

Question No: 1 (Marks: 01) - Please choose the correct option

..... function is used to determine the current location while reading a file.

- A. tellp()
- B. tellg() (Page 215)
- C. seekp()
- D. seekg()

Question No: 2 (Marks: 01) - Please choose the correct option

..... operator can be used for masking of flags.

- A. ^ (Page 250)
- B. &&
- C. ||
- D. >>

Question No: 3 (Marks: 01) - Please choose the correct option

What will be the output of the following code?

```
int main(){
    int i = 20;
```

```
for(int i=1;i<10;i++);  
cout<<i;  
  
return 0;  
}
```

- A. 10
- B. 20 (Run on DEV C++ IDE)**
- C. 9
- D. 1

Question No: 4 (Marks: 01) - Please choose the correct option

What will be the output of the following code?

```
int main() {  
    change();  
    return 0;  
}  
int change (int a=12){  
    int b=12;  
    a = a + b;  
    cout<<a++;  
}
```

- A. 12
- B. 24 (Run on DEV C++ IDE)**
- C. 25
- D. 26

Question No: 5 (Marks: 01) - Please choose the correct option

While handling files in C++, the default mode of “ifstream” library for opening file is.

- A. ios::ate
- B. ios::out
- C. ios::in (page 220)**
- D. ios::app

Question No: 6 (Marks: 01) - Please choose the correct option

In C++, “getline()” function is a built-in function that allows accepting and reading.

- A. Single line (Page 430)
- B. Multiple lines
- C. Single and Multiple lines
- D. Only multiword input

Question No: 7 (Marks: 01) - Please choose the correct option

Which one of the following is correct definition of structure?

- A. struct Student{ char name[30]}
- B. struct Student { char name[30];}
- C. struct Student { char name[35];}; (Page 229)
- D. struct {char name[30];}

Question No: 8 (Marks: 01) - Please choose the correct option

```
struct book {  
    char title[20];  
};
```

```
int main(){  
    book * sptr;  
}
```

From the above code the correct way to access the data member **title** of the structure **book** through pointer is?

- A. sptr.title
- B. sptr:title
- C. sptr->title (Read Your Handouts)
- D. .sptr*title

Question No: 9 (Marks: 01) - Please choose the correct option

What will be the output of the following program?

```
#include <iostream>
#define LIMIT 3

int main()
{
    for (int i = 2; i < LIMIT; i++) {
        std::cout << i* LIMIT << "\t";
    }
    return 0;
}
```

- A. 6 (Run on DEV C++ IDE)
- B. 2 3 6
- C. 3
- D. 9

Question No: 10 (Marks: 01) - Please choose the correct option

The proper way of defining a macro is.

- A. #define SIZE 5;
- B. #define SIZE 5 (Page # 277)
- C. Set SIZE 5;
- D. #set SIZE 5

Question No: 11 (Marks: 01) - Please choose the correct option

In C++, dynamic memory allocation is done on _____ memory.

- A. Static
- B. Stack
- C. Heap (Page # 330)
- D. Hard Disk

Question No: 12 (Marks: 01) - Please choose the correct option

Which of the following is not an acceptable class specifier?

- A. public
- B. private
- C. protected
- D. pointer (Search on Google)

Question No: 13 (Marks: 01) - Please choose the correct option

_____ is another name for a class's data members.

- A. Attribute (Search on Google)
- B. Method
- C. Instance
- D. Dimensions

Question No: 14 (Marks: 01) - Please choose the correct option

In C++, class data members are generally kept as _____.

- A. public
- B. private (Search on Google)
- C. protected
- D. static

Question No: 15 (Marks: 01) - Please choose the correct option

To declare the friend function, which keyword is used?

- A. Friend
- B. FRIEND
- C. FriendD
- D. friend (Page # 515)

Question No: 16 (Marks: 01) - Please choose the correct option

In C++, which of the following operator cannot be overloaded?

- A. +
- B. -
- C. /
- D. ->

(Page # 371)

Question No: 17 (Marks: 01) - Please choose the correct option

A class includes both data members as well as functions to manipulate the data. These functions are called _____.

- A. Member functions (Search on Google)
- B. Constant functions
- C. Rational functions
- D. Memory functions

Question No: 18 (Marks: 01) - Please choose the correct option

Which of the following is known as an instance of a class?

- A. Data member
- B. Constructor
- C. Member function
- D. Object

(Page # 395)

Question No: 19 (Marks: 01) - Please choose the correct option

In friend function, which operator is utilized to access members of a class using class objects.

- A. ::
- B. +
- C. *
- D. .

(Page # 352)

Question No: 20 (Marks: 01) - Please choose the correct option

Which of the following is the correct way of referring a data member “buf” of a class name “String”? Consider “buf” data member declared as a character pointer.

- A. buf;
- B. this->buf; (Search on Google)
- C. *(this).buf;
- D. *this.buf

Question No: 21 (Marks: 01) - Please choose the correct option

In C++, which of the following operator can be overloaded?

- A. sizeof
- B. ?:
- C. ::
- D. % (Page # 371)

Question No: 22 (Marks: 01) - Please choose the correct option

When a unary operator is overloaded and is a member of a class, how many arguments need to be passed explicitly when it is called?

- A. Zero (Search on Google)
- B. One
- C. Two
- D. Three

Question No: 23 (Marks: 01) - Please choose the correct option

What will be the output of following program in C++?

```
#include<iostream>
```

```
using namespace std;
class A
{
    int a;
    public:
        A(int x):a(x){}
        int geta() {return a;}
};
int main ()
{
    A M(10),N(20);
    N = M;
    cout<<N.geta();
    return 0;
}
```

- A. 20
- B. 10 (Run on DEV C++ IDE)
- C. 30
- D. 15

Question No:24 (Marks: 01) - Please choose the correct option

Which of the following manipulators “Terminate a string with NULL”?

- A. endl
- B. flush
- C. ends (Page # 436)
- D. ws

Question No: 25 (Marks: 01) - Please choose the correct option

What will be the output of following code snippet written in C++?

```
int main(){
    double var = 3.14362987;
    cout<< setprecision(4) << var;
}
```

- A. 3.144 (Run on DEV C++ IDE)

- B. 3.143
- C. 3.1436
- D. 3.145

Question No: 26 (Marks: 01) - Please choose the correct option

Which of the following is not a format state flag?

- A. ios::dec
- B. ios::showpoint
- C. ios::showcause (Page # 439)
- D. ios::right

Question No: 27 (Marks: 01) - Please choose the correct option

Which of the following is not a recommended way to use a copy constructor?

- A. Explicit call to the copy constructor (Search on Google)
- B. Using “=” operator
- C. In passing by value
- D. In passing by reference

Question No: 28 (Marks: 01) - Please choose the correct option

If we press the key 1 from the keyboard to store it in integer i , the digit 1 travels as a(an) _____ but stored as number inside i .

- A. integer
- B. character (Search on Google)
- C. float
- D. double

Question No: 29 (Marks: 01) - Please choose the correct option

In C++, for every stream, there should be _____.

- A. Template and class
- B. Source and destination (Page # 424)
- C. Function and operator
- D. Structure and Union

Question No: 30 (Marks: 01) - Please choose the correct option

In C++, whenever have an “&” ampersand symbol appears on right hand side of an “=” assignment operator, it is taken as _____ of an object.

- A. Pointer
- B. Reference
- C. Address (Page # 146)
- D. Function

Question No: 31 (Marks: 01) - Please choose the correct option

While writing nested classes in C++, no memory is allocated for it unless a/an _____ of it is created.

- A. Function
- B. Instance (Page # 492)
- C. Class
- D. Operator

Question No: 32 (Marks: 01) - Please choose the correct option

In C++, which one from the following errors can be encountered when dealing with references.

- A. Memory Leak
- B. Dangling Reference (Reading Handouts)
- C. Static Reference
- D. Global Reference

Question No: 33 (Marks: 01) - Please choose the correct option

In C++, operator overloading is quite similar to _____.

- A. Macros.
- B. Inline function
- C. Function overloading (Reading Handouts)
- D. Object Creation

Question No: 34 (Marks: 01) - Please choose the correct option

Considering knowledge of using a friend functions in C/C++, choose which rule is applicable on friend functions?

- A. private members cannot be accessed from anywhere
- B. protected members cannot be accessed from anywhere
- C. protected and private members can be accessed from outside the class
- D. protected and private members cannot be accessed from outside the class

Question No: 35 (Marks: 01) - Please choose the correct option

The correct syntax for writing a template 'class student' of type 'T' is _____.

- A. `template <class T> class student { ... };` (Page # 512)
- B. `template <Class T> Class student { ... };`
- C. `Template <class T> class student { ... };`
- D. `template <class student > class T { ... };`

Question No: 36 (Marks: 01) - Please choose the correct option

In C/C++, the array index number for representing last element of an array of size 10 is _____.

- A. 5
- B. 7

Question No: 37 (Marks: 01) - Please choose the correct option

Trace the output of the following code segment.

```
int main(){  
    int arr[2][3]= {{1, 2, 3}, {4, 5, 6}};  
    cout<<arr[1][1];  
  
}
```

A. 2

B. 4

C. 5

(Run on DEV C++ IDE)

D. 6

Question No: 38 (Marks: 01) - Please choose the correct option

What will be the output of the given code segment?

```
int arr[]={2,5,6,8,9,10,6,3,1};  
int * ptr= &arr[1];  
cout<<*(ptr+4);
```

A. 6

B. 10

(Run on DEV C++ IDE)

C. 3

D. 1

Question No: 39 (Marks: 01) - Please choose the correct option

What will be the output of the given code segment?

```
int arr[]={2,5,6,8,9,10,6,3,1};  
int * ptr= &arr[3];  
cout<<*(ptr+4);
```

- A. 10
- B. 6
- C. 3 (Run on DEV C++ IDE)
- D. 5

Question No: 40 (Marks: 01) - Please choose the correct option

Which one of the following is not a keyword and can be used as an identifier in C/C++?

- A. friends (Reading Handouts)
- B. template
- C. this
- D. new

Question No: 41 (Marks: 03)

Determine the number of iterations the following loop will run.

```
int op, lim, k;  
op = 6;  
lim = 0;  
while (k <= 60) {  
    k = op << lim;  
    lim += 1;  
}
```

6 Times

Question No: 42 (Marks: 03)

What is the masking operator? Write the code snippet and determine the output of expression which masks a variable int x = 100; with int m = 50;

Question No: 40 (Marks: 03)

What will be output of the following code segment?

```
class Output{
private:
    int a,b,c;
public:
    Output(){
        a = 8;
        b = 4;
        c = 0;
    }
    void Display(){
        c=a/b;
        cout <<a<<"\n"<<b<<"\n"<<c;
    }
};
int main() {
    Output ob;
    ob.Display();
    return 0;
}
```

Output

8
4
2

Question No: 44 (Marks: 03)

Name the types of constructor used in C++.

Page # 321

Question No: 45 (Marks: 03)

Write the keywords used for auxiliary input output stream and printer output stream in DOS.

Page # 429

Question No: 46 (Marks: 05)

What will be output of the following program?

```
#include <iostream>
using namespace std;
int main () {

    double x = 123.4;
    cout.precision(4);
    cout<< scientific;
    cout<< x << endl;
    return 0;

}
```

Question No: 48 (Marks: 05)

Trace the output of the following code.

```
class first
{
    friend void add(first *, int);
private:
    int variable;
public:
    void print()
    {
        cout << "Variable = " <<variable<<endl;
    }
    first();
};
first::first()
{
    variable = 0;
}
void add(first *x, int y){
    x->variable += y;
}

int main(){
    first z;
    z.print();
}
```

```
    add(&z, 10);
    z.print();
}
```

Question No: 49 (Marks: 05)

Write the C++ syntax to create and delete a dynamic array using new and delete operator.

Page # 411

Question No: 50 (Marks: 05)

Carefully read and analyze the following code and determine its output.

```
class One {
public:
    One(){
        cout << "Class One Constructor" << endl;
    }
    ~One(){
        cout << "Class One Destructor" << endl;
    }
};
class Three {
private:
    One one;
public:
    Three() {
        cout << "Class Three Constructor" << endl;
    }
    ~Three(){
        cout << "Class three Destructor" << endl;
    }
};
class Two {
private:
    Three three;
public:
    Two(){
        cout << "Class Two Constructor" << endl;
    }
};
```

```
    }  
};  
  
int main()  
{  
    Two two;  
    return 0;  
}
```

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