Assessment Report

Unit1_Quiz

Student Name : Ravella Abhinav
Roll No : CB.EN.U4CSE19453
Batch : B.Tech_CSE_S3E
Course : Advanced Programming

Total Questions : 30
Max Score : 30
Duration : 0
Score Obtained : 6.25
Time Taken : 36 min 27 sec

1. 1) Predict the output for the following program. (1)

[Hint: This program will print 4 numbers separated by single space . A sample example for the answer format is : 11 12 13 14] (0.25 Negative mark)

```
c)  int x=9;
d)  class sample
e)  {
f)  int x;
g)  public :
h)  sample( )
i)  { x=7;
j)  int x=10;
k)  cout<<x<<" "<<::x<<" ";
l)  }
m)  void displayX( )
n)  {
o)  cout<<x<<" "<<::x;
p)  }
q)  };
r)  int main( )
s)  {
t)  sample s;
u)  s.displayX( );
v)  return 0;
w)  }
```

Your Answer { 10 9 7 9}

Answer:
✔ 10 9 7 9

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

1) Predict the output for the following program.

[Hint: This program will print 4 numbers separated by single space . A sample example for the answer format is : 11 12 13 14]

c) int x=9;

d) class sample

e) {

f) int x;

g) public :

h) sample( )

i) { x=7;

j) int x=10;

k) cout<<x<<" "<<::x<<" ";

l) }

m) void displayX( )

n) {

o) cout<<x<<" "<<::x;

p) }

q) };

r) int main( )

s) {

t) sample s;

u) s.displayX( );

v) return 0;

w) }

Your Answer { 10 9 7 9}

2. 1) Identify and name the oops concept for the following real life scenario. (1)

[Hint : The **answer contains only one word ,** for example inheritance, polymorphism, encapsulation, abstraction. The answer should be written in lower case letters. (0.25 Negative mark)

Crocodiles live on land or in the sea indifferently. In land its movement is very slow relative to water .

Your Answer { polymorphism **}**

Not Attempted

Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

1) Identify and name the oops concept for the following real life scenario.

[Hint : The answer contains only one word , for example inheritance, polymorphism, encapsulation, abstraction. The answer should be

written in lower case letters.

Crocodiles live on land or in the sea indifferently. In land its movement is very slow relative to water .

Your Answer { polymorphism }

3. 1) Given the following code, correct the line number 6 get the desired output 10. Assume all headers and prerequisites.e (1)

(0.25 Negative mark)

Hint: rewrite com plete line

```
1.  class Point {
2.  int x;
3.  public:
4.  Point(int x) {
5.  this->x = x; }
6.  Point(const Point p)
7.  {
8.  x = p.x;}
9.  int getX() {
10. return x; }
11. };
12. int main()
13. {
14. Point p1(10);
15. Point p2 = p1;
16. cout << p2.getX();
17. return 0;
18. }
```

Your Answer { Point(const Point &p) }

Not Attempted

Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

1) Given the following code, correct the line number 6 get the desired output 10 . Assume all headers and prerequisites.e

Hint: rewrite com plete line

```
1.  class Point {
2.  int x;
3.  public:
4.  Point(int x) {
5.  this->x = x; }
6.  Point(const Point p)
7.  {
```

```
8.    x = p.x;}
9.    int getX() {
10.  return x; }
11.  };
12.  int main()
13.  {
14.  Point p1(10);
15.  Point p2 = p1;
16.  cout << p2.getX();
17.  return 0;
18.  }
```

Your Answer { **Point(const Point &p) }**

4. Given the following code, fill in the line ***a*** to get the desired output. Assume all headers and prerequisites. (1)

(0.25 Negative mark)

```
class A
{
        public:
        A() {
          cout << "Constructor" << endl;
        }
        ~A() {
           cout << "Destructor" << endl;
      }
};

int main()
{
        (a) A* obj ={new A[4]};
        delete [] obj;;
        return 0;
}
```

Answer:

✖ new(A)

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

Given the following code, fill in the line *a* to get the desired output.

Assume all headers and prerequisites.

```
class A
{
        public:
        A() {
          cout << "Constructor" << endl;
        }
        ~A() {
          cout << "Destructor" << endl;
      }
};

int main()
{
        (a) A* obj ={new A[4]};
        delete [] obj;;
        return 0;
}
```

5.

hat is the output of the following code? Assume all headers and prerequisites. (1)

(0.25 Negative mark)

```
class list{
list(){
cout<<"list ";
}
~list(){
cout<< destroyed ;
}
};

class temp{
temp(){
cout<<"temp ";
}
};
int main()
{
int size =5;
int * list = new int[size];
int * temp = new int[size + 5];
for (int i = 0; i < size; i++)
temp[i] = list[i];
delete [] list;
list = temp;
return 0;
}
```

- list temp
- error
- no output ✔
- list temp destroyed

Not Attempted

Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

6.

hat is the output of the following code snippet? Assume all headers and erequisites. (1)

(0.25 Negative mark)

int: This program will print error or numbers separated by single space . A mple example for the answer format is : 11 12 13 14]

```
int* ptr = NULL;
ptr = new(nothrow) int;
if (!ptr)
   cout << "No Space\n";
else
{
   *ptr = 10;
}
float *r = new float(50.20);
int a = 7;
int *q = new(nothrow) int[a];
 if (!q)
   cout << "allocation of memory failed\n";
else
{
   for (int i = 1; i < a; i++)
      q[i] = i+1;
    cout << "Value store in block of memory: ";
   for (int i = 0; i <= a; i++)
      cout << q[i] << " ";
}
delete ptr;
delete r;
delete[] q;
```

ur Answer { 2 3 4 5 6 7 0}

Answer:

✖ error

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

What is the output of the following code snippet? Assume all headers and prerequisites.

[Hint: This program will print error or numbers separated by single space . A sample example for the answer format is : 11 12 13 14]

```
int* ptr = NULL;
ptr = new(nothrow) int;
if (!ptr)
```

```
    cout << "No Space\n";
else
{
   *ptr = 10;
}
float *r = new float(50.20);
int a = 7;
int *q = new(nothrow) int[a];
 if (!q)
   cout << "allocation of memory failed\n";
else
{
   for (int i = 1; i < a; i++)
      q[i] = i+1;
    cout << "Value store in block of memory: ";
   for (int i = 0; i <= a; i++)
      cout << q[i] << " ";
}
delete ptr;
delete r;
delete[] q;
```

Your Answer { 2 3 4 5 6 7 0}

7. Complete the empty space in the given code snippet to get the given output. Assume all headers and prerequisites. (1)

(0.25 Negative mark)

```
int* pointInt;
 pointInt = _____new{ int(45) };
 cout << *pointInt << endl;
 delete pointInt;
return 0;
```

Output

45

Answer:

✖ new pointint

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective :

19CSE201.6.LO18

Answer Key

Complete the empty space in the given code snippet to get the given output. Assume all headers and prerequisites.

```
int* pointInt;
pointInt = _____new{int(45) };
cout << *pointInt << endl;
delete pointInt;
return 0;
```

Output

45

8. What is the output for the given code snippet. Assume all headers and prerequisites. (1)

(0.25 Negative mark)

[Hint: This program will print error or numbers without space . A sample example for the answer format is : 1234]

```
#define N 10
int main() {
   int* A = new int[N];
   for(int i=0;i<N;i++)
      A[i]=i+1;
   for(int i=0;i<N;i++)
   cout<<*(A+i);
   delete [] A;
   return 0;
}
```

Your Answer { 12345678910}

Answer:

✖ error

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

What is the output for the given code snippet. Assume all headers and prerequisites.

[Hint: This program will print error or numbers without space . A sample example for the answer format is : 1234]

```
#define N 10
int main() {
```

```
    int* A = new int[N];
    for(int i=0;i<N;i++)
       A[i]=i+1;
    for(int i=0;i<N;i++)
    cout<<*(A+i);
    delete [] A;
    return 0;
}
```

Your Answer { 12345678910}

9. 1. Assume you are a building a computer version for the popular game called Monopoly . Players buy and sell to accumulate money. They buy Houses and Hotels on their properties and bankrupt their opponents to win it all. Chance and Community Chest cards change everything randomly. Identify the classes you will create for the game. (1)

(0.25 Negative mark)

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

✔ ☑ Players

☐ Hotels

☐ Houses

✔ ☑ Properties

10. Identify the **wrong** statement/statements about abstraction (1)

(0.25 Negative mark)

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

✔ ☐ Abstraction allows us access to the relevant information regarding a problem/domain, and ignores the remainder

☐ separates implementation from interface

☐ compartmentalization of structure and behavior so that the details of an

Object s implementation are hidden

✔ ☐ It allows us to communicate effectively with customers and users

11. 1. When will get output **same** in the following program? Fill the correct option for line number 13. (1)

(0.25 Negative mark)

```
3)  class Complex {
4)  public:
5)  int real, imag;
6)  public:
7)  Complex(int r = 0, int i =0) {real = r; imag = i;}
8)  };
9)  int main()
10) {
11) Complex c1(10, 5), c2(2, 4);
12) c1=c2;
13) if (_______)
14) cout << "Same";

15) return 0;
16) }
```

a) a). c1=c2

b) b). c1==c2

c) c). c1.real=c1.real

d) d). c1.real==c2.real

- ○ a
- ○ a or c
- ○ only c
- ✔ ○ only d
- ○ b or c

Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Not Attempted

12.

Predict the output for the following program. (1)

int: This program will print error or corres **ponding output]** (0.25 Negative mark)

```
class Test2
{
int y;
};

class Test
{
int x;
) Test2 t2;
) public:
) operator Test2 () {
:urn t2; }
) operator int () {
:urn x; }
) };
) void fun ( int x) {
ut << "fun(int) called"; }
) void fun ( Test2 t ) {
ut << "fun(Test 2) called"; }
) int main()
) {
) Test t;
) fun(t);
) return 0;
) }
```

ur answer {error}

Answer:

✔ error

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

1) Predict the output for the following program.

[Hint: This program will print error or corres **ponding output]**

3) class Test2

4) {

5) int y;

```
6)    };

7)    class Test
8)    {
9)    int x;
10)   Test2 t2;
11)   public:
12)   operator Test2 () {
return t2; }
13)   operator int () {
return x; }
14)   };
15)   void fun ( int x) {
cout << "fun(int) called"; }
16)   void fun ( Test2 t ) {
cout << "fun(Test 2) called"; }
17)   int main()
18)   {
19)   Test t;
20)   fun(t);
21)   return 0;
22)   }
```

your answer {error}

13.

The following program will end up with ambiguous error. Identify the line, which leads ambiguous error and correct the entire statement. After correcting your statement, the program supposed to print **Function with float called** (1)

(0.25 Negative mark)

Hint: No need to write line number only correct statement is answer

```
#include<iostream>
using namespace std;
void test(float s,float t)
{
cout << "Function with float called ";
}
void test(int s, int t)
{
cout << "Function with int called ";
}
int main()
{
test(3.5, 5.6);
return 0;
}
```

Your Answer { test(3.5f, 5.6f); }

Not Attempted

Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

1. The following program will end up with ambiguous error. Identify the line, which leads ambiguous error and correct the entire statement. After correcting your statement, the program supposed to print Function with float called

Hint: No need to write line number only correct statement is answer

a. #include<iostream>

b. using namespace std;

c. void test(float s,float t)

d. {

e. cout << "Function with float called ";

f. }

g. void test(int s, int t)

h. {

i. cout << "Function with int called ";

j. }

k. int main()

l. {

m. test(3.5, 5.6);

n. return 0;

o. }

Your Answer { test(3.5f, 5.6f); }

14. 1) Predict the output for the following program. (1)

[Hint: This program will print error or number.] (0.25 Negative mark)

```
1)  #include <iostream>

2)  int main(int argc, char **argv)
3)  {
4)  std::cout << 25u - 50;
5)  return 0;
6)  }
```

your answer { 4294967271 }

Answer:

✖ =4294967271

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

1) Predict the output for the following program.

[Hint: This program will print error or number.]

```
1)  #include <iostream>

2)  int main(int argc, char **argv)
3)  {
4)  std::cout << 25u - 50;
5)  return 0;
6)  }
```

your answer { 4294967271 }

15. 1) Predict the output for the following program. (1)

[Hint: This program will print error or number] (0.25 Negative mark)

2) int main(int argc, const char * argv[]) {

3) int a[] = {

1, 2, 3, 4, 5, 6};

4) std::cout << (1 + 3)[a] - a[0] + (a + 1)[2];

5) }

Your Answer {8}

Answer:

✖ =8

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

1) Predict the output for the following program.

[Hint: This program will print error or number]

2) int main(int argc, const char * argv[]) {

3) int a[] = {

1, 2, 3, 4, 5, 6};

4) std::cout << (1 + 3)[a] - a[0] + (a + 1)[2];

5) }

Your Answer {8}

16. What will be the order of execution of base class constructors in the following method of inheritance.class a: public b, public c {...}; (1)

(0.25 Negative mark)

✔ ◉ b(); c(); a();

○ c(); b(); a();

○ a(); b(); c();

○ b(); a(); c();

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

17.

(1)

(0.25 Negative mark)

```
What will be the output of the following program?

Note:Includes all required header files
```

```
ass find {
blic:
oid print() { cout <<" In find"; }

ass course : public find {
blic:
oid print() { cout <<" In course"; }

ass tech: public course { };

int main(void)
{
 tech t;
 t.print();
 return 0;
}
```

- ○ In find
- ✔ ◉ In course
- In course
- In find
- ○
- In find
- In course
- ○

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

18.

Predict the output for the following program. (1)

int: This program will print error or corres **ponding output]** (0.25 Negative mark)

```
func(int m = 10, int n)

{ int c;

   c = m + n;

   return c; }

int main()

{ cout << func(5);

   return 0; }
```

ur Answer {error}

Not Attempted

Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

1) Predict the output for the following program.

[Hint: This program will print error or corres **ponding output]**

```
int func(int m = 10, int n)

   { int c;

      c = m + n;

      return c; }

   int main()

   { cout << func(5);

      return 0; }
```

Your Answer {error}

19. What will be the output of this program? (1)

(0.25 Negative mark)

```
a)  class Base {};
b)  class Derived: public Base {};

c)  int main()
d)  {
e)  Base *p = new Derived;
f)  Derived *q = new Base;
g)  }
```

✖ ⦿ error: invalid conversion from "Derived*" to "Base*"

○ No Compiler Error

✔ ○ error: invalid conversion from "Base*" to "Derived*"

○ Runtime Error

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

20. Given code snippet, Which among the following is true for the code given below? (1)

(0.25 Negative mark)

```
class A
{
        int marks;
        public : disp()
        {
                cout&lt;&lt;marks;
        }
}
class B: protected A
{
        char name[20];
}
A a; a.disp();
B b; b.disp();
```

✔ ⦿ Only object of class A can access disp() function

○ Only object of class B can access disp() function

○ Both instances can access disp() function

○ Accessing disp() outside class is not possible

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

21. Inline functions may not work _____ . (select all correct answers) (1)

(0.25 Negative mark)

✔ ☑ If function contain static variables.

☐ function contain global and register variables.

✔ ☑ If function returning value consists looping construct(i.e. for, while).

☐ If function contains const value.

✔ ☑ If inline functions are recursive.

Your Score : 0.999999
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

22. Assume that the random number generating function - rand( ), returns an integer between 0 and 10000 (both inclusive). If you want to simulate the throwing of a die using this random function, use the correct expression _____. (1)

(0.25 Negative mark)

○ rand ( ) % 6

✔ ◉ rand ( ) % 6 + 1

○ rand ( ) % 5 + 1

○ None of the above

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

23. Answer the following. Assume that unsigned integers are stored in 2 bytes and that the starting address of the array is at location 1002500 in memory. (1)

(0.25 Negative mark)

a) Declare a pointer vPtr that points to an object of type unsigned int.

Hint: Your answer suppose to be in single statement end with semicolon

Your Answer {unsigned *vPtr;}

Answer:

✖ unsigned int *vPtr;

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

Answer the following. Assume that unsigned integers are stored in 2 bytes and that the starting address of the array is at location 1002500 in memory.

a) Declare a pointer vPtr that points to an object of type unsigned int.

Hint: Your answer suppose to be in single statement end with semicolon

Your Answer {unsigned *vPtr;}

24.

ɔnsider a 2-by-3 integer array t. (1)

rite a single statement that sets the element of t in row 1 and column 2 to zero. (0.25 Negative mark)

nt: Your answer in single statement end with semicolon

ɔur Answer {t[0][1] = 0;}

Answer:

✖ int t[0][1]=0;

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

Consider a 2-by-3 integer array t.

Write a single statement that sets the element of t in row 1 and column 2 to zero.

Hint: Your answer in single statement end with semicolon

Your Answer {t[0][1] = 0;}

25. Find the output of below program. (1)

(0.25 Negative mark)

```
1) int main()
2) {
3) for(int i=1;i<=2;i++)
4) {
5) for(int j=i;j<=2;j++)
6) cout<<i<<"@";
7) }
8) }
```

Your Answer {1@1@2@}

Answer:

✔ 1@1@2@

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

Find the output of below program.

1) int main()

2) {

3) for(int i=1;i<=2;i++)

4) {

5) for(int j=i;j<=2;j++)

6) cout<<i<<"@";

7) }

8) }

Your Answer {1@1@2@}

26. What is the output of the following code snippet ?Assume all headers and prerequisites. (1)

(0.25 Negative mark)

int x=4,y=5,a,b;

cout<<(x=4&&y=5)?(a=5):(b=6);

Your Answer {error}

Answer:

✖ a=5

Your Score : 0
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

Answer Key

What is the output of the following code snippet ?Assume all headers and prerequisites.

int x=4,y=5,a,b;

cout<<(x=4&&y=5)?(a=5):(b=6);

Your Answer {error}

27. If class A is friend of class B and if class B is friend of C, which of the following is true? (1)

(0.25 Negative mark)

○ class C is friend of class A

✔ ◉ class A is friend of class C

○ class A and classC do not have any friend relationship

○ None of the above

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

28. Given below are some statements about the default (0-argument) constructor: (select all correct answers) (1)

(0.25 Negative mark)

✔ ☑
It is sometimes, but not always, defined by C++ if it isn t provided by the programmer

☐ The programmer must define it

✔ ☑ It has no return type

☐
It is always defined by C++ if it isn t provided by the programmer

✔ ☑
The programmer can define it, but the C++ language doesn t require this

☐ Its return type is the type of the class

Your Score : 0.999999
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

29. Which of the following functions will correctly return true if its argument is an odd integer ? (select all correct answers) (1)

(0.25 Negative mark)

✔ ☑ bool IsOdd (int x) { if (x % 2 == 1) return true; else return false; }

☐ bool IsOdd (int x) { return (x / 2 == 1); }

✔ ☑ bool IsOdd (int x) { return (x % 2 == 1); }

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18

30. Given below are three implementations of the swap function: (1)

(0.25 Negative mark)

1. void swap (int a, int b) { int temp; temp = a; a = b; b = temp; } int main () { int i = 0, j = 1; swap (i, j); }

2. void swap (int &a, int &b) { int temp; temp = a; a = b; b = temp; } int main () { int i = 0, j = 1; swap (i, j); }

3. void swap (int *a, int *b) { int *temp; temp = a; a = b; b = temp; } int main () { int i = 0, j = 1; swap (&i, &j); }

○ 1 only

✔ ◉ 2 only

○ 1 and 2 only

○ 2 and 3 only

Your Score : 1
Bloom's Taxonomy : Apply
Difficulty Level : Hard
Learning Objective : 19CSE201.6.LO18