1. The size of an object or a type can be determined using which operator?
a) malloc
b) sizeof
c) malloc
d) calloc
View Answer
Answer:b
Explanation: The size of operator gives the size of the object or type.
2. It is guaranteed that a has atleast 8bits and a has atleast 16 bits.
a) int, float
b) char, int
c) bool, char
d) char, short
View Answer
Answer:d
Explanation:None.
3. Implementation dependent aspects about an implementation can be found in
a) <implementation></implementation>
b) b) dimits>
c) <limit></limit>
d) <numeric></numeric>
View Answer
Answer:b
Explanation: The limit header holds the details of the machine dependent details.
4. Size of C++ objects are expressed in terms of multiples of the size of a and the size of a
char is
a) char, 1
b) int, 1
c) float, 8
d) char, 4
View Answer
Answer:a Evalenation:None
Explanation:None. 5. Identify the incorrect option.
a) 1 <= sizeof(bool) <= sizeof(long)
b) sizeof(float) <= sizeof(double) <= sizeof(long double)
c) sizeof(char) <= sizeof(long) <= sizeof(wchar_t)
d) sizeof(signed N) = sizeof(unsigned N)
View Answer
Answer:c
Explanation:sizeof(char) <= sizeof(wchar_t) <= sizeof(long)
6. What is the output of the following program?
1. #include <iostream></iostream>
2. using namespace std;
3. int main()
4. {

```
5.
            int num = 0x20 + 020 + 20;
   6.
            cout << sizeof(num)<<'n';</pre>
   7.
            return 0;
   8.
          }
a) 2
b) 4
c) Depends on compiler.
d) garbage
View Answer
Answer:c
Explanation: The sum of three numbers are belongs to different number systems, so the result is
typecasted into integer.
Output:
$ g++ size.cpp
$ a.out
4
7. What is the output of the following program?
          #include <iostream>
    1.
   2.
          using namespace std;
    3.
          int main ()
    4.
   5.
            static double i;
   6.
            i = 20;
   7.
            cout << sizeof(i);</pre>
   8.
            return 0;
   9.
          }
a) 4
b) 2
c) 8
d) garbage
View Answer
Answer:c
Explanation: The size of the double data type is 8.
$ g++ size1.cpp
$ a.out
8. What is the output of the following program?
    1.
          #include <iostream>
   2.
          using namespace std;
    3.
          int main()
   4.
            int num1 = 10;
   5.
            float num2 = 20;
   6.
   7.
            cout << sizeof(num1 + num2);</pre>
   8.
            return 0;
   9.
          }
```



- b) 4
- c) 8
- d) garbage

Answer:b

Explanation:In this program, integer is converted into float. Therefore the result of num1 and num2 is float. And it is returning the size of the float.

Output:

```
$ g++ size2.cpp
$ a.out
```

4

- 9. What is the output of the following program?
 - 1. #include <iostream>
 - 2. using namespace std;
 - 3. int main()
 - 4. {
 - 5. int a = 5;
 - 6. float b;
 - 7. $\operatorname{cout} << \operatorname{sizeof}(++a+b);$
 - 8. $cout \ll a$;
 - 9. return 0;
 - 10. }
- a) 2 6
- b) 4 6
- c) 25
- d) 45

View Answer

Answer:d

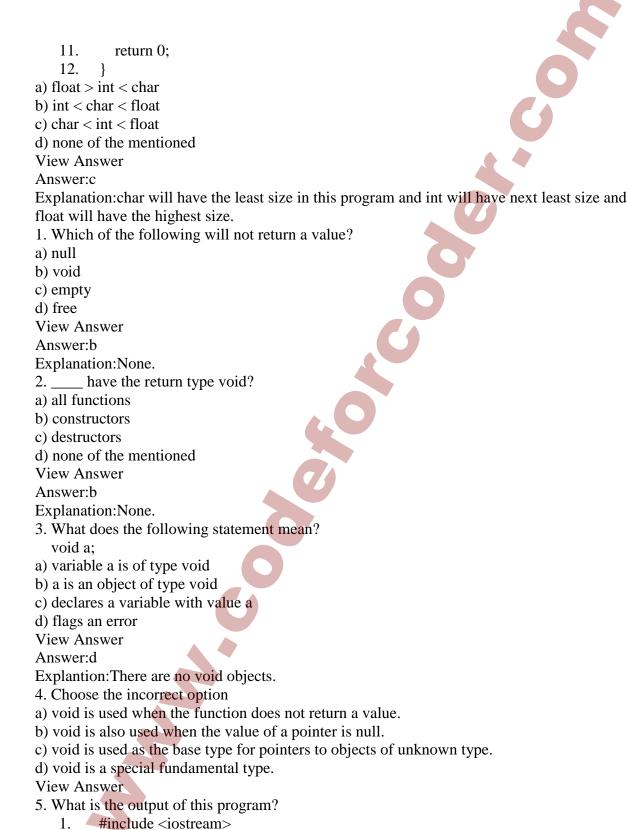
Explanation: The a as a integer will be converted to float while calculating the size. The value of any variable doesn't modify inside size of operator. Hence value of variable a will remain 5.

Output:

```
$ g++ size3.cpp
$ a.out
```

4 5

- 10. Arrange the size of the data type from lower to higher value in this program.
 - 1. #include <iostream>
 - 2. using namespace std;
 - 3. int main()
 - 4. {
 - 5. char y = 'a';
 - 6. int x = 10;
 - 7. float z = 10.1;
 - 8. cout << sizeof(char);
 - 9. cout << sizeof(int);
 - 10. cout << sizeof(float);



2.

3.

4.

using namespace std;

int main()

{

- 5. void a = 10, b = 10;
- 6. int c;
- 7. c = a + b;
- 8. cout << c;
- 9. return 0;
- 10. }
- a) 20
- b) compile time error
- c) runtime error
- d) none of the mentioned

Answer:b

Explanation:void will not accept any values to its type.

- 1. What does the following statement mean? int (*fp)(char*)
- a) pointer to a pointer
- b) pointer to an array of chars
- c) pointer to function taking a char* argument and returns an int
- d) function taking a char* argument and returning a pointer to int

View Answer

Answer:c

Explanation: None.

- 2. The operator used for dereferencing or indirection is _____
- a) *
- b) &
- $c) \rightarrow$
- $d) \rightarrow >>$

View Answer

Answer:a

Explanation:None.

- 3. Choose the right option
 - string* x, y;
- a) x is a pointer to a string, y is a string
- b) y is a pointer to a string, x is a string
- c) both x and y are pointer to string types
- d) none of the mentioned

View Answer

Answer:a

Explanantion:* is to be grouped with the variables not the data types.

- 4. Which one of the following is not a possible state for a pointer.
- a) hold the address of the specific object
- b) point one past the end of an object
- c) zero

```
d) point to a tye
View Answer
Answer:d
Explanation: A pointer can be in only 3 states a,b and c.
5. Which of the following is illegal?
a) int *ip;
b) string s, *sp = 0;
c) int i; double* dp = \&i;
d) int *pi = 0;
View Answer
Answer:c
Explanation: dp is initialized int value of i.
6. What will happen in this code?
  int a = 100, b = 200;
  int *p = &a, *q = &b;
  p = q;
a) b is assigned to a
b) p now points to b
c) a is assigned to b
d) q now points to a
```

Explanation: Assigning to refrence changes the object to which the refrence is bound.

7. What is the output of this program?

View Answer Answer:b

```
#include <iostream>
using namespace std;
int main()
{
  int a = 5, b = 10, c = 15;
  int *arr[] = {&a, &b, &c};
  cout << arr[1];
  return 0;
}</pre>
```

- a) 5
- b) 10
- c) 15
- d) it will return some random number

Answer:d

Explanation: Array element cannot be address of auto variable. It can be address of static or extern variables.

8. The correct statement for a function that takes pointer to a float, a pointer to a pointer to a char and returns a pointer to a pointer to a integer is

```
a) int **fun(float**, char**)
b) int *fun(float*, char*)
c) int ***fun(float*, char**)
d) int ***fun(*float, **char)
View Answer
Answer:c
Explanation:None.
```

9. What is the output of this program?

```
#include <iostream>
using namespace std;
int main()
{
    char arr[20];
    int i;
    for(i = 0; i < 10; i++)
        *(arr + i) = 65 + i;
    *(arr + i) = \0';
    cout << arr;
    return(0);
}
```

a) ABCDEFGHIJ

```
b) AAAAAAAAA
c) JJJJJJJJ
d) none of the mentioned
View Answer
Answer:a
Explanation: Each time we are assigning 65 + i. In first iteration i = 0 and 65 is assigned. So it
will print from A to J.
$ g++ point1.cpp
$ a.out
ABCDEFGHIJ
10. What is the output of this program?
     #include <iostream>
     using namespace std;
     int main()
     {
       char *ptr;
       char Str[] = "abcdefg";
       ptr = Str;
       ptr += 5;
       cout << ptr;
       return 0;
     }
a) fg
b) cdef
c) defg
d) abcd
View Answer
Answer:a
1. Which of the following correctly declares an array?
a) int array[10];
b) int array;
c) array{10};
d) array array[10];
```

View Answer Answer:a Explanation:Because array variable and values need to be declared after the datatype only. 2. What is the index number of the last element of an array with 9 elements? a) 9 b) 8 c) 0 d) Programmer-defined View Answer Answer:b Explanation: Because the first element always starts at 0. So it is on 8 position. 3. What is a array? a) An array is a series of elements of the same type in contiguous memory locations b) An array is a series of element c) An array is a series of elements of the same type placed in non-contiguous memory locations d) None of the mentioned View Answer Answer:a Explanation: None. 4. Which of the following accesses the seventh element stored in array? a) array[6]; b) array[7]; c) array(7); d) array; View Answer Answer:a Explanation: The array location starts from zero, So it can accessed by array[6]. 5. Which of the following gives the memory address of the first element in array? a) array[0]; b) array[1]; c) array(2); d) array: View Answer Answer:d Explanation: None. 6. What will be the output of this program?

using namespace std;

#include <stdio.h>

```
int array1[] = \{1200, 200, 2300, 1230, 1543\};
    int array2[] = {12, 14, 16, 18, 20};
     int temp, result = 0;
     int main()
       for (temp = 0; temp < 5; temp++) {
         result += array1[temp];
       }
       for (temp = 0; temp < 4; temp++)
         result += array2[temp];
       }
       cout << result;</pre>
       return 0;
a) 6553
b) 6533
c) 6522
d) 12200
View Answer
Answer:b
Explanation:In this program we are adding the every element of two arrays. Finally we got
output as 6533.
Output:
$ g++ array.cpp
$ a.out
6533
7. What will be the output of the this program?
     #include <stdio.h>
     using namespace std;
```

```
int main ()
       int array[] = \{0, 2, 4, 6, 7, 5, 3\};
       int n, result = 0;
       for (n = 0; n < 8; n++)
          result += array[n];
        }
       cout << result;</pre>
       return 0;
     }
a) 25
b) 26
c) 27
d) None of the mentioned
View Answer
Answer:c
Explanation: We are adding all the elements in the array and printing it.
Output:
$ g++ array1.cpp
$ a.out
27
8. What is the output of this program?
     #include <stdio.h>
     using namespace std;
     int main()
       int a = 5, b = 10, c = 15;
       int arr[3] = \{\&a, \&b, \&c\};
```

```
cout << *arr[*arr[1] - 8];
       return 0;
     }
a) 15
b) 18
c) garbage value
d) compile time error
View Answer
Answer:d
Explantion: The conversion is invalid in this array. So it will arise error.
9. What is the output of this program?
     #include <stdio.h>
     using namespace std;
    int main()
       char str[5] = "ABC";
       cout << str[3];
       cout << str;
       return 0;
     }
a) ABC
b) ABCD
c) AB
d) None of the mentioned
View Answer
Answer:a
Explanation: We are just printing the values of first 3 values.
$ g++ array.cpp
$ a.out
ABC
```

```
10. What is the output of this program?
     #include <stdio.h>
     using namespace std;
     int main()
       int array[] = \{10, 20, 30\};
       cout << -2[array];
       return 0;
     }
a) -15
b) -30
c) compile time error
d) garbage value
View Answer
Answer:b
1. What is meaning of following declaration?
int(*p[5])();
a) p is pointer to function.
b) p is array of pointer to function.
c) p is pointer to such function which return type is array.
d) p is pointer to array of function.
View Answer
Answer:b
Explanation:In the above declaration the variable p is array not pointer.
2. What is size of generic pointer in c?
a) 0
b) 1
c) 2
d) Null
View Answer
Answer:c
Explanation: Size of any type of pointer is 2 byte.
3. What is the output of this program?
        #include <iostream>
    1.
   2.
         using namespace std;
    3.
         int main()
    4.
         {
```

```
5.
            int a[2][4] = \{3, 6, 9, 12, 15, 18, 21, 24\};
   6.
            cout << *(a[1] + 2) << *(*(a + 1) + 2) << 2[1[a]];
   7.
            return 0:
   8.
a) 15 18 21
b) 21 21 21
c) 24 24 24
d) Compile time error
View Answer
Answer:b
Explanation: a[1][2] means 1 * (4)+2 = 6th element of an array staring from zero.
Output:
$ g++ point.cpp
$ a.out
21 21 21
4. What is the output of this program?
         #include <iostream>
   1.
   2.
         using namespace std;
         int main()
   3.
   4.
         {
   5.
            int i;
   6.
           char *arr[] = { "C", "C++", "Java", "VBA" };
   7.
            char *(*ptr)[4] = &arr;
   8.
            cout << ++(*ptr)[2];
   9.
            return 0;
   10.
        }
a) ava
b) java
c) c++
d) compile time error
View Answer
Answer:a
Explanation: In this program we are moving the pointer from first position to second position and
printing the remaining value.
Output:
$ g++ point1.cpp
$ a.out
5. What is the output of this program?
         #include <iostream>
   1.
         using namespace std;
   2.
   3.
         int main()
   4.
   5.
            int arr[] = \{4, 5, 6, 7\};
   6.
            int *p = (arr + 1);
   7.
            cout << *p;
```

```
8.
            return 0;
   9.
         }
a) 4
b) 5
c) 6
d) 7
View Answer
Answer:b
Explanation: In this program, we are making the pointer point to next value and printing it.
$ g++ point3.cpp
$ a.out
6. What is the output of this program?
         #include <iostream>
    1.
   2.
         using namespace std;
    3.
         int main()
   4.
         {
   5.
            int arr[] = \{4, 5, 6, 7\};
            int *p = (arr + 1);
   6.
   7.
            cout << arr;
   8.
            return 0;
   9.
         }
a) 4
b) 5
c) address of arr
d) 7
View Answer
Answer:c
Explanation: As we couted to print only arr, it will print the address of the array.
Output:
$ g++ point2.cpp
$ a.out
0xbfb1cff
7. What is the output of this program?
    1.
         #include <iostream>
   2.
         using namespace std;
    3.
         int main ()
   4.
            int numbers[5];
   5.
            int * p;
   6.
   7.
            p = numbers; *p = 10;
            p++; *p = 20;
   8.
   9.
            p = & numbers[2]; *p = 30;
    10.
            p = numbers + 3; *p = 40;
            p = numbers; *(p + 4) = 50;
    11.
    12.
            for (int n = 0; n < 5; n++)
```

- cout << numbers[n] << ",";13. 14. return 0; 15. a) 10, 20, 30, 40, 50 b) 1020304050 c) compile error
- d) runtime error

Answer:a

Explanation: In this program, we are just assigning a value to the array and printing it and immediatly dereferencing it.

Output:

\$ g++ point4.cpp

\$ a.out

10, 20, 30, 40, 50

- 8. What is the output of this program?
 - 1. #include <iostream>
 - 2. using namespace std;
 - 3. int main()
 - 4. {
 - 5. int arr $[] = \{4, 5, 6, 7\};$
 - int *p = (arr + 1);6.
 - 7. cout << *arr + 9;
 - 8. return 0;

}

- 9.
- a) 12
- b) 5
- c) 13
- d) error

View Answer

Answer:c

Explantion: In this program, we are adding the value 9 to the initial value of the array, So it's printing as 13.

- 1. Which value we cannot assign to reference?
- a) integer
- b) floating
- c) unsigned
- d) null

View Answer

Answer:d

Explanation: If it can be assigned with a null value means, it is a copy of pointer.

- 2. Identify the incorrect statement
- a) reference is the alternate name of the object
- b) A reference value once defined can be reassigned
- c) A reference value once defined cannot be reassigned

- d) none of the mentioned
- View Answer
- 3. Which refrence modifier is used to define reference variable?
- a) &
- b) \$
- c)#
- d) none of the mentioned

Answer:a

Explanation: None.

- 4. What is the output of this program?
 - 1. #include <iostream>
 - 2. using namespace std;
 - 3. void swap(int &a, int &b);
 - 4. int main()
 - 5.
 - 6. int a = 5, b = 10;
 - 7. swap(a, b);
 - 8. cout << "In main " << a << b;
 - 9. return 0;
 - 10.
 - 11. void swap(int &a, int &b)
 - 12.
 - 13. int temp;
 - 14. temp = a;
 - 15. a = b;
 - 16. b = temp;
 - 17. cout << "In swap " << a << b;
 - 18.
- a) In swap 105 In main 105
- b) In swap 105 In main 510
- c) In swap 510 In main 105
- d) none of the mentioned

View Answer

Answer:a

Explanation: As we are calling by reference the values in the address also changed. So the main and swap values also changed.

Output:

\$ g++ ref.cpp

\$ a.out

In swap 105 In main 105

- 5. What does a reference provide?
- a) Alternate name for the class
- b) Alternate name for the variable
- c) Alternate name for the pointer

```
d) none of the mentioned
View Answer
Answer:b
Explanation:Because we are pointing memory address using temp variable
6. What is the output of this program?
   1.
   2.
         using namespace std;
```

```
#include <iostream>
```

- 3. int main()
- 4. 5.
- int a = 9; int & aref = a; 6.
- 7. a++;
- 8. cout << "The value of a is " << aref;
- 9. return 0;
- 10.
- a) 9
- b) 10
- c) error
- d) 11

Answer:b

Explanation: The value is declared and it is post incremented, so it's value is 10.

```
$ g++ ref1.cpp
```

\$ a.out

10

- 7. What is the output of this program?
 - #include <iostream> 1.
 - 2. using namespace std;
 - 3. void print (char * a)
 - 4.
 - 5. cout << a << endl;
 - 6.
 - 7. int main ()
 - 8.
 - 9. const char * a = "Hello world";
 - print(const_cast<char *> (a)); 10.
 - return 0; 11.
 - 12.
- a) Hello world
- b) Hello
- c) world
- d) compile time error

View Answer

Answer:a

Explanation: In this program we used the concept of constant casting to cast the variable and printing it.

Output: \$g++ ref2.cpp\$ a.out Hello world 8. Identify the correct sentence regarding inequality between reference and pointer. a) we can not create the array of reference. b) we can create the Array of reference. c) we can use reference to reference. d) none of the mentioned View Answer Answer:a Explanation: None. 1. Which value we cannot assign to reference? a) integer b) floating c) unsigned d) null View Answer Answer:d Explanation: If it can be assigned with a null value means, it is a copy of pointer. 2. Identify the incorrect statement a) reference is the alternate name of the object b) A reference value once defined can be reassigned c) A reference value once defined cannot be reassigned d) none of the mentioned View Answer 3. Which refrence modifier is used to define reference variable? a) & b) \$ c) # d) none of the mentioned View Answer Answer:a Explanation: None. 4. What is the output of this program? #include <iostream> using namespace std; void swap(int &a, int &b);

int main()

```
{
  int a = 5, b = 10;
  swap(a, b);
  cout << "In main " << a << b;
  return 0;
}

void swap(int &a, int &b)
{
  int temp;
  temp = a;
  a = b;
  b = temp;
  cout << "In swap " << a << b;
}</pre>
```

- a) In swap 105 In main 105
- b) In swap 105 In main 510
- c) In swap 510 In main 105
- d) none of the mentioned

Answer:a

Explanation: As we are calling by reference the values in the address also changed. So the main and swap values also changed.

Output:

\$ g++ ref.cpp \$ a.out

In swap 105 In main 105

- 5. What does a reference provide?
- a) Alternate name for the class
- b) Alternate name for the variable
- c) Alternate name for the pointer

d) none of the mentioned

View Answer

Answer:b

Explanation:Because we are pointing memory address using temp variable

6. What is the output of this program?

void print (char * a)

```
#include <iostream>
     using namespace std;
     int main()
       int a = 9;
       int & aref = a;
       a++;
       cout << "The value of a is " << aref;
       return 0;
a) 9
b) 10
c) error
d) 11
View Answer
Answer:b
Explanation: The value is declared and it is post incremented, so it's value is 10.
$ g++ ref1.cpp
$ a.out
10
7. What is the output of this program?
     #include <iostream>
     using namespace std;
```

```
cout << a << endl;
    int main ()
       const char * a = "Hello world";
       print(const_cast<char *> (a) );
       return 0;
a) Hello world
b) Hello
c) world
d) compile time error
View Answer
Explanation: In this program we used the concept of constant casting to cast the variable and
printing it.
Output:
$ g++ ref2.cpp
$ a.out
Hello world
```

- 8. Identify the correct sentence regarding inequality between reference and pointer.
- a) we can not create the array of reference.
- b) we can create the Array of reference.
- c) we can use reference to reference.
- d) none of the mentioned

Answer:a

Explanation: None.

Explanation:Because void pointer is used to cast the variables only, So pointer arithmetic can't be done in a void pointer.

- . The data elements in structure are also known as what?
- a) objects
- b) members
- c) datas
- d) none of the mentioned

View Answer Answer:b Explanation:None.

- 2. What will be used when terminating a structure?
- a):
- b) }
- c);
- d);;

View Answer

Answer:c

Explanation: While terminating a structure, a semi colon is used to end this up.

- 3. What will happen when the structure is declared?
- a) it will not allocate any memory
- b) it will allocate the memory
- c) it will be declared and initialized
- d) none of the mentioned

View Answer

Answer:a

Explantion: While the structure is declared, it will not be initialized, So it will not allocate any memory.

- 4. The declaration of structure is also called as?
- a) sructure creator
- b) structure signifier
- c) structure specifier
- d) none of the mentioned

View Answer

Answer:c

Explanation: The structure declaration with open and close braces and with a semicolon is also called structure specifier.

5. What is the output of this program?

```
#include <iostream>
#include <string.h>
using namespace std;
int main()
{
    struct student {
```

```
int num;
          char name[25];
       };
       student stu;
       stu.num = 123;
       strcpy(stu.name, "John");
       cout << stu.num << endl;</pre>
       cout << stu.name << endl;</pre>
       return 0;
     }
a) 123
  john
b) john
  john
c) compile time error
d) none of the mentioned
View Answer
Answer:a
Explanation: We are coping the value john to the name and then we are printing the values that
are in the program.
Output:
$ g++ stu.cpp
$ a.out
123
john
6. What is the output of this program?
     #include <iostream>
     using namespace std;
     struct Time {
       int hours;
```

```
int seconds;
    };
     int toSeconds(Time now);
     int main()
       Time t;
       t.hours = 5;
       t.minutes = 30;
       t.seconds = 45;
       cout << "Total seconds: " << toSeconds(t) << endl;</pre>
       return 0;
    int toSeconds(Time now)
       return 3600 * now.hours + 60 * now.minutes + now.seconds;
     }
a) 19845
b) 20000
c) 15000
d) 19844
View Answer
Answer:a
Explanation: In this program, we are just converting the given hours and minutes into seconds.
Output:
$ g++ stu1.cpp
$ a.out
Total seconds:19845
```

int minutes;

```
7. What will be the output of this program?
     #include <iostream>
     using namespace std;
     int main()
     {
       struct ShoeType {
         char style;
         double price;
       };
        ShoeType shoe1, shoe2;
        shoe1.style = 'Adidas';
        shoe1.price = 9.99;
        cout << shoe1.style << " $ "<< shoe1.price;
        shoe2 = shoe1;
        shoe2.price = shoe2.price / 9;
        cout << shoe2.style << " $ "<< shoe2.price;</pre>
        return 0;
a) Adidas $ 9.99
  Adidas $ 1.11
b) Adidas $ 9.99
  Adidas $ 9.11
c) Adidas $ 9.99
  Adidas $ 11.11
d) none of the mentioned
View Answer
```

Answer:a

Explanation: We copied the value of shoe1 into shoe2 and divide the shoe2 value by 9, So this is the output.

```
Output:
```

\$ a.out

```
$ g++ stu2.cpp
$ a.out
Adidas $ 9.99
Adidas $ 1.11
```

```
8. What is the output of this program?
     #include <iostream>
     using namespace std;
     struct sec {
       int a;
       char b;
     };
     int main()
       struct sec s = \{25,50\};
       struct sec *ps =(struct sec *)&s;
       cout << ps->a << ps->b;
       return 0;
a) 252
b) 253
c) 254
d) 262
View Answer
Answer:a
Explanation:In this program, We are dividing the values of a and b, printing it.
Output:
$ g++ stu5.cpp
```

- 9. Which of the following is a properly defined structure?
- a) struct {int a;}
- b) struct a_struct {int a;}
- c) struct a_struct int a;
- d) struct a_struct {int a;};

Answer:d

Explantion: The a_struct is declared as structure name and its data element is a.

- 10. Which of the following accesses a variable in structure *b?
- a) b->var;
- b) b.var;
- c) b-var;
- d) b>var;

View Answer

Answer:a

Explanation:Because in a structure pointer, the data element is declared as above only.