

 Back To Course

Quiz

Question 1 [5 Marks]

Choose the correct output from the options given below:

```
# include <bits/stdc++.h>
# define scanf "%s Geeks Quiz"
int main()
{
    printf(scanf, scanf);
    return 0;
}
```

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		



Compiler Error



%s Geeks Quiz



Geeks Quiz



%s Geeks Quiz Geeks Quiz

Explanation

Preprocessing occurs prior to Compilation. So all instances of `scanf` gets replaced by `%s Geeks Quiz`. Thus the `printf` statement becomes `printf("%s Geeks Quiz", "%s Geeks Quiz")`, thus producing the output given in option (D).

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks
Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

Quiz

Question 2 [5 Marks]

Which file is generated after pre-processing of a C program?

- A .exe
- B .i
- C .s
- D .out

Explanation

A *.i file is an output of the C/C++ preprocessor. It is usually this extension which is characteristic of files created as the preprocessor output.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 3 [5 Marks]

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

Practice Now!



```
#include <bits/stdc++.h>
using namespace std;

#define MAX 1000

int main()
{
    int MAX = 100;
    cout << MAX << endl;
    return 0;
}
```

- A 1000
- X 100
- ✓ Compilation Error
- D Garbage Value

Explanation

The program generates Compilation Error as the preprocessor replaces `int MAX = 100` with `int 1000 = 100`, which is an invalid statement.

Your submitted response was incorrect.

Previous

Submitted

Next

 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 4 [5 Marks]

Given the following macro:

```
#define hypotenuse(a, b) sqrt(a*a+b*b)
```

The call `hypotenuse(a+2,b+3)`

A

finds the hypotenuse of a triangle with sides $a+2$ and $b+3$

B

finds the square root of $(a+2)^2$ and $(b+3)^2$

X

is invalid

C

finds the square root of $3*a + 4*b + 5$

Your submitted response was incorrect.

Previous

Submitted

Next

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!



 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 5 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

#define square(x) x*x

int main()
{
    int x;
    x = 36/square(6);
    cout << x;
    return 0;
}
```

A

1

✓

36

C

0

X

Compilation Error

Explanation

The call `36/square(6)` gets replaced by `36/6*6`, and having same operator precedence (between * and /), left-to-right associativity comes into play yielding `(36/6)*6`.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 6 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    unsigned int x = -1;
    int y = ~0;
    if (x == y)
        cout << "same";
    else
        cout << "not same";
    return 0;
}
```



same



not same

Explanation

When we assign `unsigned int x = -1`, -1 gets converted into its 2's complement form and stored as **11111111** (bit-format in memory), which is the same as complementing all the bits of **0**.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks
Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 7 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    float c = 5.0;
    cout << "Temperature in Fahrenheit is: " << (9/5)*c + 32;
    return 0;
}
```

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		



Temperature in Fahrenheit is: 41



Temperature in Fahrenheit is: 37



Temperature in Fahrenheit is: 0



Compilation Error

Explanation

Although data-type of **c** is floating-point, but due to parenthesis on **(9/5)**, it gets evaluated to **1** (integer division), and final result becomes **1*5.0+32**.

Your submitted response was correct.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks
Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 8 [5 Marks]

Choose the correct option regarding the below C variable declarations

```
signed s;
unsigned u;
long l;
long long ll;
```



All of the above variable definitions are incorrect because basic data type int is missing.



All of the above variable definitions are correct because int is implicitly assumed in all of these.



Only "long l;" and "long long ll;" are valid definitions of variables.



Only "unsigned u;" is valid definition of variable.

Your submitted response was **incorrect**.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 9 [5 Marks]

Suppose n and p are unsigned int variables in a C program. We wish to set p to nC_3 . If n is large, which of the following statements is most likely to set p correctly?

A

 $p = n * (n-1) * (n-2) / 6$

B

 $p = n * (n-1) / 2 * (n-2) / 3$

C

 $p = n * (n-1) / 3 * (n-2) / 2$

D

 $p = n * (n-1) * (n-2) / 6.0$

Explanation

To set nC_3 to an integer, in case n is large, we need to divide intermediate products (multiplying all before will cause **overflow**). Option (B) is correct because we are multiplying $n*(n-1)$ first and then dividing by 2 (perfectly divisible because odd * even product), and thereafter performing $*(n-1)/3$.

Your submitted response was correct.

Previous

Submitted

Next

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!

 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 10 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    register int i = 10;
    int *ptr = &i;
    cout << *ptr;
    return 0;
}
```

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		



A Prints 10 on all compilers



B Prints 0 on all compilers



C May generate Compilation Error



D May generate Runtime Error

Explanation

Theoretically according to the language specifications, `register int` variables are allocated directly on the CPU registers for fast-access. Thus, dereferencing it may lead to Compilation Error (no storage address on RAM present to which pointer should point to). In C compilers error is thrown, however in most C++ compilers, `register` keyword is deprecated and carry no meaning, implying variables allocated that way gets default specifier `auto`. Hence, it may seem to work in C++ compilers. However, following language specifications, we stick to Option (C).

Your submitted response was incorrect.

[Previous](#)

[Submitted](#)

[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

[Practice Now!](#)



[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)

[Careers](#)

[Privacy Policy](#)

[Contact Us](#)

[Terms of Service](#)

Learn

[Algorithms](#)

[Data Structures](#)

[Languages](#)

[CS Subjects](#)

[Video Tutorials](#)

Practice

[Courses](#)

[Company-wise](#)

[Topic-wise](#)

[How to begin?](#)

Contribute

[Write an Article](#)

[Write Interview Experience](#)

[Internships](#)

[Videos](#)

 Back To Course

Quiz

Question 11 [5 Marks]

```
using namespace std;

int fun()
{
    static int num = 16;
    return num--;
}

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

Quiz			
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

Practice Now!



- A** Infinite loop
- B** 13 10 7 4 1
- C** 14 11 8 5 2
- D** 15 12 8 5 2

Explanation

static variables are not de-allocated upon function return and thus persist the value till the lifetime of the whole program. Thus, in the 1st iteration: 16 -> 15 (initialization part of for) -> 14 (condition check). Thus cout << fun() prints 14 and decrements afterwards (post-decrement), yielding Option (C).

Your submitted response was correct.

Previous

Submitted

Next

 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 12 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    extern int i;
    cout << i << " ";
    {
        int i = 10;
        cout << i << " ";
    }
}
```

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

Practice Now!



Explanation

An **extern** variable is **only declared**. Hence, no actual memory gets allocated. Accessing it in the **cout** statement before definition is invalid, and thus Compilation Error is thrown.

Your submitted response was correct.

Previous

Submitted

Next

 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 13 [5 Marks]

Pick the correct statement for const and volatile keywords.

A

const is the opposite of volatile and vice versa

B

const and volatile can't be used for struct and union

X

const and volatile can't be used for enum

D

const and volatile can't be used for typedef

✓

const and volatile are independent i.e. it's possible that a variable is defined as both const and volatile

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

Quiz

1 2 3 4

5 6 7 8

9 10 11 12

13 14 15 16

17 18 19 20

21 22 23 24

25 26 27 28

29 30 31 32

33 34 35 36

37 38 39 40

41 42 43 44

45 46 47 48

49 50

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 14 [5 Marks]

```
char *fun()
{
    static char arr[1024];
    return arr;
}

int main()
{
    char *str = "geeksforgeeks";
    strcpy(fun(), str);
    str = fun();
    strcpy(str, "geeksquiz");
    cout << fun();
    return 0;
}
```

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!



Explanation

The variable str initially was a string literal. Upon execution of `str = fun()`, str now points to a static character array, finally `strcpy` copies the "geeksquiz" onto the array pointed to by str.

NOTE: If we didn't assign str to an array (`str = fun()`), then it would have remained a string literal. A string literal (declared as: `char *p="literal"`) is non-modifiable and would cause compilation error at `strcpy`.

Your submitted response was correct.

Previous

Submitted

Next

 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 15 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int x, y = 5, z = 5;
    x = y == z;
    cout << x;
    return 0;
}
```

- | | |
|---|-------------------|
| A | 0 |
| ✓ | 1 |
| C | 5 |
| D | Compilation Error |

Explanation

`==` has a greater precedence than `=`. Thus, the expression `x=y==z` is evaluated as `x=(y==z)`, leading to true (value 1).

Your submitted response was correct.

[Previous](#)[Submitted](#)[Next](#)

Practice.
Practice.
Practice.
Practice to become an Amazon SDE!

[Practice Now!](#)

[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 16 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int i = 3;
    cout << (++i)++;;
    return 0;
}
```

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

 A

3

 ✓

4

 ✗

5

 D

Compilation Error

Explanation

Pre-increment yields value 4. This is the value which gets printed, thereafter, post-increment yields 5.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 17 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    //Assume sizeof character is 1 byte and sizeof integer is 4 bytes
    cout << sizeof_printf("GeeksQuiz"));
    return 0;
}
```

Quiz			
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

A

GeeksQuiz4

B

4GeeksQuiz

C

GeeksQuiz9

D

4

E

Compilation error

Explanation

sizeof_printf) returns the size of the return type of printf function, which is an integer, thus the value: 4. Any expression however inside sizeof operator never gets evaluated. Thus, "GeeksQuiz" never gets printed. sizeof determines the final data-type of the enclosed expression without ever evaluating it.

Your submitted response was correct.

[Previous](#)[Submitted](#)[Next](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 18 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int a = 10, b = 20, c = 30;
    if (c > b > a)
        printf("TRUE");
    else
        printf("FALSE");
    return 0;
}
```

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20

21 22 23 24

25 26 27 28

29 30 31 32

33 34 35 36

37 38 39 40

41 42 43 44

45 46 47 48

49 50



TRUE



FALSE



Compilation Error



Compiler Dependent Output

Explanation

> has **left-to-right** associativity. Hence, the expression $c>b>a$ becomes $(c>b)>a$. $(c>b)>a \Rightarrow (30>20)>10 \Rightarrow 1>10$ which is false.NOTE: $(30>20)$ yields 1, as $>$ is a comparison operator returning a true/false (1/0) value.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks
Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 19 [5 Marks]

Which of the following is not a logical operator?



&&



!



||



|

Explanation

| is bitwise-OR (not a logical operator).

Previous

Submitted

Next

Quiz

1 2 3 4

5 6 7 8

9 10 11 12

13 14 15 16

17 18 19 20

21 22 23 24

25 26 27 28

29 30 31 32

33 34 35 36

37 38 39 40

41 42 43 44

45 46 47 48

49 50

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!



Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

Quiz

Question 20 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    cout << (1 << 2 + 3 << 4);
    return 0;
}
```

- A
- B
- C
- D

112
52
512
0

Explanation

+ has a higher precedence than <<. Thus the expression $1<<2+3<<4$ is evaluated as $1<<(2+3)<<4$:

$1<<2+3<<4 \Rightarrow 1<<(2+3)<<4 \Rightarrow 1<<5<<4$.

<< has left-to-right associativity:

$1<<5<<4 \Rightarrow (1<<5)<<4 \Rightarrow 32<<4 \Rightarrow 512$.

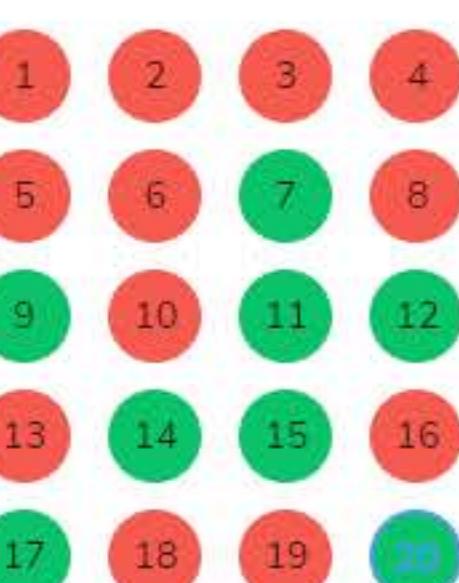
Your submitted response was correct.

Previous

Submitted

Next

Quiz



21 22 23 24

25 26 27 28

29 30 31 32

33 34 35 36

37 38 39 40

41 42 43 44

45 46 47 48

49 50

GeeksforGeeks

Practice.

Practice.

Practice.

Practice to become an Amazon SDE!

Practice Now!



 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 21 [5 Marks]

What does the following statement do?

```
x = x | 1 << n;
```

A

Sets x as 2^{n+1}

B

Sets $(n+1)^{th}$ bit of x

C

Toggles $(n+1)^{th}$ bit of x

D

Unsets $(n+1)^{th}$ bit of x

Explanation

$<<$ has higher precedence than $|$. Hence the expression $x | 1 << n$ becomes $x | (1 << n)$. The expression $1 << n$ shifts 1 by n places to the left, yielding binary 1 followed by n zeros. e.g. $1 << 5 \Rightarrow 100000$. Taking OR with x then sets 6th bit of x from the right. (because $0|1 = 1$ and $1|1 = 1$).e.g. $8 | 1 << 2 = 12$, because:
 $8 \sim 1000_2$ $1 << 2 \sim 0100_2$ -----
res: $1100_2 \sim 12$

Your submitted response was correct.

Previous**Submitted****Next****GeeksforGeeks**

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!**Report An Issue**

If you are facing any issue on this page. Please let us know.

GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org

**Company**[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)**Learn**[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)**Practice**[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)**Contribute**[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 22 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int x = 10;
    int y = 20;
    x += y += 10;
    cout << x << " " << y;
    return 0;
}
```

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

Practice Now!



Explanation

`x += y += 10` has right-to-left associativity. Hence, the expression `x += y += 10` becomes `x += (y += 10)`:
`x += (y += 10)` sets $y = y + 10 \sim y = 30$, thereafter
 $x += 30 \sim x = 40$.

Your submitted response was correct.

Previous

Submitted

Next

 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 23 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int y = 0;
    int x = (~y == 1);
    cout << x;
    return 0;
}
```

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		



0



B



Garbage Value



Compilation Error

Explanation

~ is the bitwise-NOT operator. So the value of ~0 would be all 1s (in binary representation) which means decimal value of ~0 is not 1. Therefore the result of comparison operator becomes 0.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks
Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 24 [5 Marks]

Suppose a C++ program has floating constant 1.414, what's the best way to convert this as "float" data type?

 (float)1.414

 float(1.414)

 1.414f or 1.414F

 1.414 itself of "float" data type i.e. nothing else required

Explanation

By default floating constant is of double data type. By suffixing it with f or F, it can be converted to float data type.

Previous

Submitted

Next

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!



 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 25 [5 Marks]

```
using namespace std;

int main()
{
    char *s[] = { "knowledge","is","power"};
    char **p;
    p = s;
    cout << ++*p << " ";
    cout << *p++ << " ";
    cout << ++*p << " ";

    return 0;
}
```

Quiz

- | | | | |
|----|----|----|----|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 |

- | | | | |
|----|----|----|----|
| 29 | 30 | 31 | 32 |
| 33 | 34 | 35 | 36 |
| 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 |
| 45 | 46 | 47 | 48 |
| 49 | 50 | | |

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!



Explanation

Let us consider the expression `++*p` in first cout. Since precedence of prefix `++` and `*` is same, associativity comes into picture. `*p` is evaluated first because both prefix `++` and `*` are right to left associative. When we increment `*p` by 1, it starts pointing to second character of "knowledge". Therefore, the first cout statement prints "nowledge". Let us consider the expression `*p++` in second cout. Since precedence of postfix `++` is higher than `*`, `p++` is evaluated first. And since it's a postfix `++`, old value of `p` is used in this expression. Therefore, second cout statement prints "nowledge". In third cout statement, the new value of `p` (updated by second cout) is used, and third cout prints "s".

Your submitted response was incorrect.

Previous

Submitted

Next

 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 26 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int arr[5];
    // Assume base address of arr is 2000 and size of integer is 32 bit
    printf("%u %u", arr + 1, &arr + 1);

    return 0;
}
```

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28

29 30 31 32

33 34 35 36

37 38 39 40

41 42 43 44

45 46 47 48

49 50



2001 2004



2004 2020



2004 Garbage Value



The program fails to compile because Address-of operator cannot be used with array name

Explanation

Name of array in C gives the address(except in sizeof operator) of the first element. Adding 1 to this address gives the address plus the sizeof(type) the array has. Applying the Address-of operator before the array name gives the address of the whole array. Adding 1 to this address gives the address plus the sizeof whole array.

Your submitted response was correct.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.Practice to become an
Amazon SDE![Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 27 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int i;
    int arr[5] = {1};
    for (i = 0; i < 5; i++)
        cout << arr[i] << " ";
    return 0;
}
```

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28

29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!



- A 1 followed by four garbage values
 X 1 1 1 1
 ✓ 0 0 0 0
 D Compilation Error

Explanation

In C/C++, if we initialize an array with fewer members, all remaining members are automatically initialized as 0. e.g.

```
int a[5] = {1, 2}; //array gets initialized as [1, 2, 0, 0, 0]
```

//We can also do as:

```
int a[5] = {};//all members get initialized with 0
```

Your submitted response was incorrect.

Previous

Submitted

Next



If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

Quiz

Question 28 [5 Marks]

Which of the following is true with respect to a C++ Reference (& operator)?

A reference can never be NULL.

B A reference needs an explicit dereferencing mechanism.

X A reference can be reassigned after it is established.

D A reference and pointer are synonymous.

Explanation

References cannot be NULL, whereas pointers can; every reference refers to some object, although it may or may not be valid. A reference can never be re-assigned once it is established. There is no existence of a reference in C++ without the particular object (stored in RAM).

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!



Quiz

Question 29 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int a[][] = {{1,2},{3,4}};
    int i, j;
    for (i = 0; i < 2; i++)
        for (j = 0; j < 2; j++)
            printf("%d ", a[i][j]);
    return 0;
}
```



1 2 3 4



Compilation Error



Four Garbage Values



4 3 2 1

Explanation

Arrays are stored inside the memory in **row-major form**, and the pointer to the 1st element is returned to the array variable. Thus, despite the array being multi-dimensional, it is stored as a single **linear** contiguous block. In case of multi-dimensional (2D,3D etc.), it is mandatory to mention all the subsequent dimension sizes (1st one can be skipped):

```
int a[] = { ... };

int a[][10] = { { ... }, ... };

int a[][5][10] = { { { ... }, ... }, ... };
```

If it were not mandatory, there won't be any way for compiler to know how to deal with expression Array[2][1]. All it has a linear block of memory. To de-reference that, a compiler needs to compute the offset of the item we need in a contiguous block of memory (int Array[2][3] is a contiguous block of integers), which should be easy for pointers. If a is a pointer, then a[N] is expanded as **start_address_in_a + N * size_of_item_pointed_by_a**. In case of expression Array[2][1], the Array is a pointer to a single dimensional array and the same formula applies. *The number of bytes in the last square bracket is required to find size_of_item_being_pointed_by_a*. If we had just Array[][], it would be impossible to find it out and hence impossible to de-reference an array element we need.

Your submitted response was incorrect.

Previous

Submitted

Next

Report An Issue

If you are facing any issue on this page. Please let us know.

GeeksforGeeks

5th Floor, A-118,

Sector-136, Noida, Uttar Pradesh - 201305

feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 30 [5 Marks]

```
void fun(int n)
{
    int idx;
    int arr1[n] = {0};
    int arr2[n];

    for (idx=0; idx<n; idx++)
        arr2[idx] = 0;
}

int main()
{
    fun(4);
    return 0;
}
```

A

Definition of both arr1 and arr2 is incorrect because variable is used to specify the size of array. Thus, will result in Compilation Error.

B

Apart from definition of arr1 arr2, initialization of arr1 is also incorrect. arr1 can't be initialized due to its size being specified as variable. Thus, will result in Compilation Error.

X

Initialization of arr1 is incorrect. arr1 can't be initialized due to its size being specified as variable. Thus, will result in Compilation Error.

C

No compilation error.

Explanation

The code will work fine.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

Back To Course

Quiz

Question 31 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    char str1[] = "GeeksQuiz";
    char str2[] = {'G', 'e', 'e', 'k', 's', 'Q', 'u', 'i', 'z'};
    int n1 = sizeof(str1)/sizeof(str1[0]);
    int n2 = sizeof(str2)/sizeof(str2[0]);
    cout << n1 << " " << n2;
    return 0;
}
```



10, 9



10, 10



9, 9



9, 10

Explanation

The sizes of str1 and str2 are 10 and 9 respectively. When an array is initialized with string in double quotes, compiler adds a '\0' (NULL character) at the end. For the 2nd array initialization, no such character is added.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

GeeksforGeeks

5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 32 [5 Marks]

```
using namespace std;

int fun(char *str1)
{
    char *str2 = str1;
    while(*++str1);
    return (str1-str2);
}

int main()
{
    char *str = "GeeksQuiz";
    cout << fun(str);
    return 0;
}
```

A

10

✓

9

X

8

D

Garbage Value

Explanation

The function fun() basically counts number of characters in input string. Inside fun(), pointer str2 is initialized as str1. The statement while(*++str1); increments str1 till '\0' is reached. str1 is incremented by 9. Finally the difference between str2 and str1 is returned which is 9.

Your submitted response was incorrect.

Previous

Submitted

Next

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

Practice Now!

 Report An Issue

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 33 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    char str[20] = "GeeksQuiz";
    cout << sizeof(str);
    return 0;
}
```

- | | |
|---|---------------|
| A | 9 |
| X | 10 |
| ✓ | 20 |
| D | Garbage Value |

Explanation

Since, the size of the character array has already been explicitly provided, hence irrespective of the fact that the initialized string is smaller, sizeof will return its actual size. i.e. 20

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 34 [5 Marks]

How will you print \\n on the screen?

- A echo "\\n";
- B printf("\\n");
- C printf("\\n');
- D printf("\\\\n");

Explanation

\\n is a predefined character in C/C++ for new-line character. Thus simply printing \\n will generate a new-line. We somehow need to escape the backslash(\\), and we do that by adding another one. Thus printing \\\\n will result in escaping of \\ and print \\n to the console.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 35 [5 Marks]

```
struct {
    short s[5];
    union {
        float y;
        long z;
    } u;
} t;
```

Assume that objects of the type short, float and long occupy 2 bytes, 4 bytes and 8 bytes, respectively. The memory requirement for variable t ignoring alignment considerations is:

-  22 bytes
-  14 bytes
-  18 bytes
-  10 bytes

Explanation

short array **s[5]** will take **10** bytes as size of short is 2 bytes. When we declare a union, memory allocated for the union is equal to memory needed for the largest member of it, and all members share this same memory space. Since **u is a union**, memory allocated to u will be max of float y(4 bytes) and long z(**8 bytes**). So, total size will be 18 bytes (**10 + 8**).

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	 36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

Quiz

Question 36 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    string s1="Hello";
    string s2="World";

    cout<<s1+s2<<endl;

    return 0;
}
```



159 (ASCII values of 'H' and 'V' gets added)



Compilation Error (Invalid operation)



HelloWorld



Hello

Explanation

For the C++ string class (defined as part of STL), + operator is overloaded to perform string concatenation:

```
string s1 = "Hello ";
string s2 = "World"

cout << s1 + s2 << endl; //yields "Hello World"
```

Similarly, += is also overloaded in the same manner.

```
s1 += "World"; //appends "World" to s1
```

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 37 [5 Marks]

```
int main()
{
    int arr1[] = {1, 2, 3};
    int *ptr1 = arr1;

    char arrc[] = {1, 2, 3};
    char *ptrc = arrc;

    cout << "sizeof arr1[] = " << sizeof(arr1) << " ";
    cout << "sizeof ptr1 = " << sizeof(ptr1) << " ";

    cout << "sizeof arrc[] = " << sizeof(arrc) << " ";
    cout << "sizeof ptrc = " << sizeof(ptrc) << " ";

    return 0;
}
```



sizeof arr1[] = 3 sizeof ptr1 = 4 sizeof arrc[] = 3 sizeof ptrc = 4



sizeof arr1[] = 12 sizeof ptr1 = 4 sizeof arrc[] = 3 sizeof ptrc = 1



sizeof arr1[] = 3 sizeof ptr1 = 4 sizeof arrc[] = 3 sizeof ptrc = 1



sizeof arr1[] = 12 sizeof ptr1 = 4 sizeof arrc[] = 3 sizeof ptrc = 4

Explanation

`sizeof` returns the whole array size (in bytes). `int` data-type is of 4-bytes and `char` is of 1-byte. Thus, the **integer array** yields a total size of **12**-bytes, however the **character array** is of total size **3**-bytes. Pointer variables on the other hand are all of same-size irrespective of the data-type they point to. The reason being pointers are used to store addresses, thus the data-type it points doesn't matter. Hence, sizes of **both the pointer variables is of 4-bytes**.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 38 [5 Marks]

```
using namespace std;

int main()
{
    float arr[5] = {12.5, 10.0, 13.5, 90.5, 0.5};
    float *ptr1 = &arr[0];
    float *ptr2 = ptr1 + 3;

    cout << *ptr2 << " ";
    cout << ptr2 - ptr1;

    return 0;
}
```



90.500000 3



90.500000 12



10.000000 12



0.500000 3

Explanation

When we add a value x to a pointer p , the value of the resultant expression is $p + x * \text{sizeof}(*p)$ where $\text{sizeof}(*p)$ means size of data type pointed by p . That is why **ptr2** is incremented to point to **arr[3]** in the above code. Same rule applies for subtraction. Note that only integral values can be added or subtracted from a pointer. We can also subtract or compare two pointers of same type.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 39 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int var; /*Suppose address of var is 2000 */

    void *ptr = &var;
    *ptr = 5;
    cout << var << " " << *ptr;

    return 0;
}
```



It will print "var=5 and *ptr=2000"



It will print "var=5 and *ptr=5"



It will print "var=5 and *ptr=XYZ" where XYZ is some random address



Compilation Error

Explanation

Key point in the above snippet is de-referencing of void pointer. It should be noted that de-referencing of void pointer isn't allowed because void is an incomplete data type. The correct way to assign value of 5 would be first to typecast void pointer and then use it. So instead of *ptr, one should use *(int *)ptr.

Your submitted response was incorrect.

[Previous](#)[Submitted](#)[Next](#)

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

[Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)

Learn

[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)

Practice

[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)

Contribute

[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

 Back To Course

Quiz

Question 40 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int array[5][5];
    cout<<((void*)array==*array)&&(*array==array[0]));
    return 0;
}
```



1
0
2
-1

Explanation

Given is a 2D array array[5][5]. array, *array, array[0] all point to the 1st element of the array. Thus if Base Address of array is 2000:

array = 2000
*array = 2000
array[0] = 2000

So expression is something like `(2000==2000 && 2000==2000)` i.e. 1&&1 will return 1.

Please refer to [this example](#) for a more clear picture

Your submitted response was incorrect.

[Previous](#)

[Submitted](#)

[Next](#)

 [Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

[About Us](#)

[Careers](#)

[Privacy Policy](#)

[Contact Us](#)

[Terms of Service](#)

Learn

[Algorithms](#)

[Data Structures](#)

[Languages](#)

[CS Subjects](#)

[Video Tutorials](#)

Practice

[Courses](#)

[Company-wise](#)

[Topic-wise](#)

[How to begin?](#)

Contribute

[Write an Article](#)

[Write Interview Experience](#)

[Internships](#)

[Videos](#)

 Back To Course

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

Practice Now!



Quiz

Question 41 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

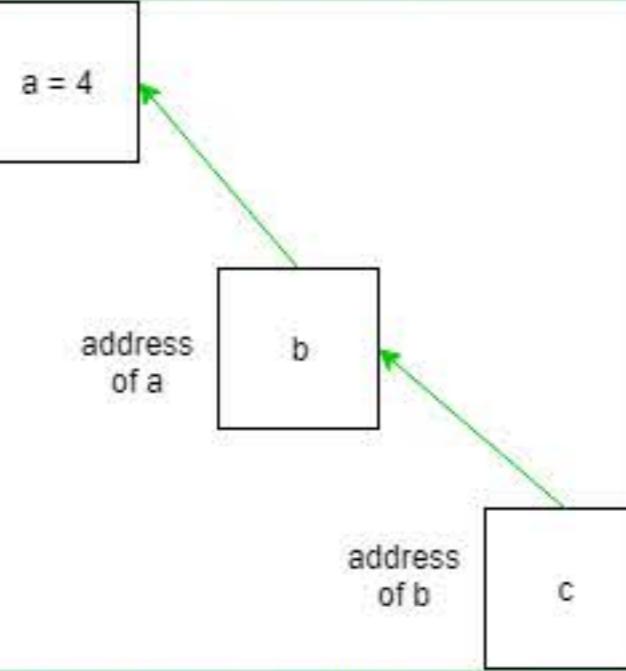
int main()
{
    int a = 1, *b=&a, **c=&b;
    a = 4;
    **c = 5;

    cout<<a;
    return 0;
}
```

- A 1
- B 4
- C ✓ 5
- D Garbage Value

Explanation

As `int*` is a pointer to an integer, similarly, `int**` is a **pointer to a pointer** pointing to an integer. i.e. pointer-to-pointer. Diagrammatically:



So de-referencing it two times gives the address of the original integer:

```
int a;
int *p = &a;
int *q = &p;

//de-referencing
cout << a;
cout << *p;
cout << **q;
```

Your submitted response was correct.

Previous

Submitted

Next

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To
Course

Quiz

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50		

GeeksforGeeks

Practice.
Practice.
Practice.
Practice to become an
Amazon SDE!

Practice Now!



Quiz

Question 42 [5 Marks]

```
using namespace std;

int main()
{
    struct site
    {
        char name[] = "GeeksQuiz";
        int no_of_pages = 200;
    };

    struct site *ptr;
    cout << ptr->no_of_pages << " " << ptr->name << endl;
    return 0;
}
```

200 GeeksQuiz

200

Runtime Error

Compilation Error

Explanation

When we declare a structure or union, we actually declare a new data type suitable for our purpose. So we cannot initialize values as it is not a variable declaration but a data type declaration.

Your submitted response was incorrect.

Previous

Submitted

Next

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

 Back To Course

Quiz

Question 43 [5 Marks]

Given the following structure definition:

```
struct {
    char name[30];
    int gender;
    struct addr locate;
} person, *kd = &person;
```

Then `*(kd -> name +2)` can be used instead of

A person.name +2

B `kd -> (name +2)`

C  `*((kd).name + 2)`

D either (A) or (B), but not (C)

Explanation

`*(kd -> name +2)` is equivalent to accessing `name` character array, and then moving forward 2 bytes. (If `a` is character-array, then `a+2` points to `a[2]`). Thus, finally we get `*((kd).name + 2)`.

Your submitted response was correct.

[Previous](#)

[Submitted](#)

[Next](#)

Practice.
Practice.
Practice.

Practice to become an

Amazon SDE!

[Practice Now!](#)



[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh – 201305

 feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

Question 44 [5 Marks]

Choose the correct output from the options given below:

```
#include <bits/stdc++.h>
using namespace std;

struct Test
{
    char str[20];
};

int main()
{
    struct Test st1, st2;
    strcpy(st1.str, "GeeksQuiz");
    st2 = st1;
    st1.str[0] = 'S';
    cout << st2.str;
    return 0;
}
```

A

Segmentation Fault

X

SeeksQuiz

C

GeeksQuiz

D

Compilation Error

Explanation

Array members are deeply copied when a struct variable is assigned to another one. Thus a new independent copy of str is produced upon `st2 = st1`. Any changes to st2 thus has no effect on st1.

Quiz

Question 45 [5 Marks]

```
using namespace std;

void fun(int *a)
{
    a = (int*)malloc(sizeof(int));
}

int main()
{
    int *p;
    fun(p);
    *p = 6;
    cout << *p;
    return 0;
}
```

A

May not work

B

Works and prints 6

C

Runtime Error: SIGSEGV

D

Compilation Error

Explanation

Because of the uncertainty in dereferencing of the variable for invalid memory reference, the code produces a runtime error, i.e. Segmentation fault, in this case.

Your submitted response was correct.

[Previous](#)[Submitted](#)[Next](#)

49

50

GeeksforGeeks

Practice.

Practice.

Practice.

Practice to become an
Amazon SDE![Practice Now!](#)[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

 GeeksforGeeks

 5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

 feedback@geeksforgeeks.org

**Company**[About Us](#)[Careers](#)[Privacy Policy](#)[Contact Us](#)[Terms of Service](#)**Learn**[Algorithms](#)[Data Structures](#)[Languages](#)[CS Subjects](#)[Video Tutorials](#)**Practice**[Courses](#)[Company-wise](#)[Topic-wise](#)[How to begin?](#)**Contribute**[Write an Article](#)[Write Interview Experience](#)[Internships](#)[Videos](#)

Question 46 [5 Marks]

Which of the following statements is/are true?

A

calloc() allocates the memory and also initializes the allocated memory to zero, while memory allocated using malloc() has random data.

B

malloc() and memset() can be used to get the same effect as calloc().

X

calloc() takes two arguments, but malloc takes only 1 argument.

D

Both malloc() and calloc() return 'void *' pointer.

✓

All of the above

Your submitted response was incorrect.

Quiz

Question 47 [5 Marks]

```
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int *p = (int*)malloc(sizeof(int));

    p = NULL;

    free(p);
}
```

A

Compilation Error (**free** can't be applied on NULL pointer)

Memory Leak

C

Dangling Pointer

D

The program may crash as free() is called for NULL pointer

49

50

GeeksforGeeks

Practice.
Practice.
Practice.

Practice to become an
Amazon SDE!

Practice Now!



Explanation

free() can be called for NULL pointer, so no problem with free function call. The problem is memory leak, p is allocated some memory which is not freed, but the pointer is assigned as NULL. The correct sequence should be following:

free(p);

p = NULL;

Your submitted response was correct.

Previous

Submitted

Next

Report An Issue

If you are facing any issue on this page. Please let us know.

GeeksforGeeks

5th Floor, A-118,
Sector-136, Noida, Uttar Pradesh - 201305

feedback@geeksforgeeks.org



Company

About Us

Careers

Privacy Policy

Contact Us

Terms of Service

Learn

Algorithms

Data Structures

Languages

CS Subjects

Video Tutorials

Practice

Courses

Company-wise

Topic-wise

How to begin?

Contribute

Write an Article

Write Interview Experience

Internships

Videos

Question 48 [5 Marks]

Which of the following is true about `new` when compared with `malloc`?

1. `new` is an operator whereas `malloc` is a function.
2. `new` calls constructor whereas `malloc` doesn't.
3. `new` returns appropriate pointer, `malloc` returns `void*` and pointer needs to typecast to appropriate type.



1 and 3



2 and 3



1 and 2



All of them

Your submitted response was incorrect.

Question 49 [5 Marks]

What happens when delete is used for a NULL pointer?

```
int *ptr = NULL;  
delete ptr;
```



Compilation Error



Runtime Error



No Effect

Explanation

Deleting a null pointer has no effect, so it is not necessary to check for a null pointer before calling delete.

Question 50 [5 Marks]

How to create a dynamic array of pointers (to integers) of size 10 using new in C++?



```
int *arr = new int *[10];
```



```
int **arr = new int *[10];
```



```
int *arr = new int [10];
```



Not Possible

Explanation

`new int*[10]` creates an 10-element array of pointers to integers. To reference an array of pointers, we need a pointer to a pointer. Thus, a double pointer (`**arr`).