

C Programming Questions and Answers – Data Types and Sizes – 1

This section on C language interview questions and answers focuses on "Data Types and Sizes". One shall practice these interview questions to improve their C programming skills needed for various interviews (campus interviews, walkin interviews, company interviews), placements, entrance exams and other competitive exams. These questions can be attempted by anyone focusing on learning C Programming language. They can be a beginner, fresher, engineering graduate or an experienced IT professional. Our C language interview questions come with detailed explanation of the answers which helps in better understanding of C concepts.

Here is a listing of C language interview questions on "Data Types and Sizes" along with answers, explanations and/or solutions:

1. Comment on the output of this C code?

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int a[5] = {1, 2, 3, 4, 5};
```

```
    int i;
```

```
    for (i = 0; i < 5; i++)
```

```
        if ((char)a[i] == '5')
```

```
            printf("%d\n", a[i]);
```



```
else

printf("FAIL\n");

}
```

- a) The compiler will flag an error
- b) Program will compile and print the output 5
- c) Program will compile and print the ASCII value of 5
- d) Program will compile and print FAIL for 5 times

View Answer

Answer:d

Explanation:The ASCII value of 5 is 53, the char type-casted integral value 5 is 5 only.

Output:

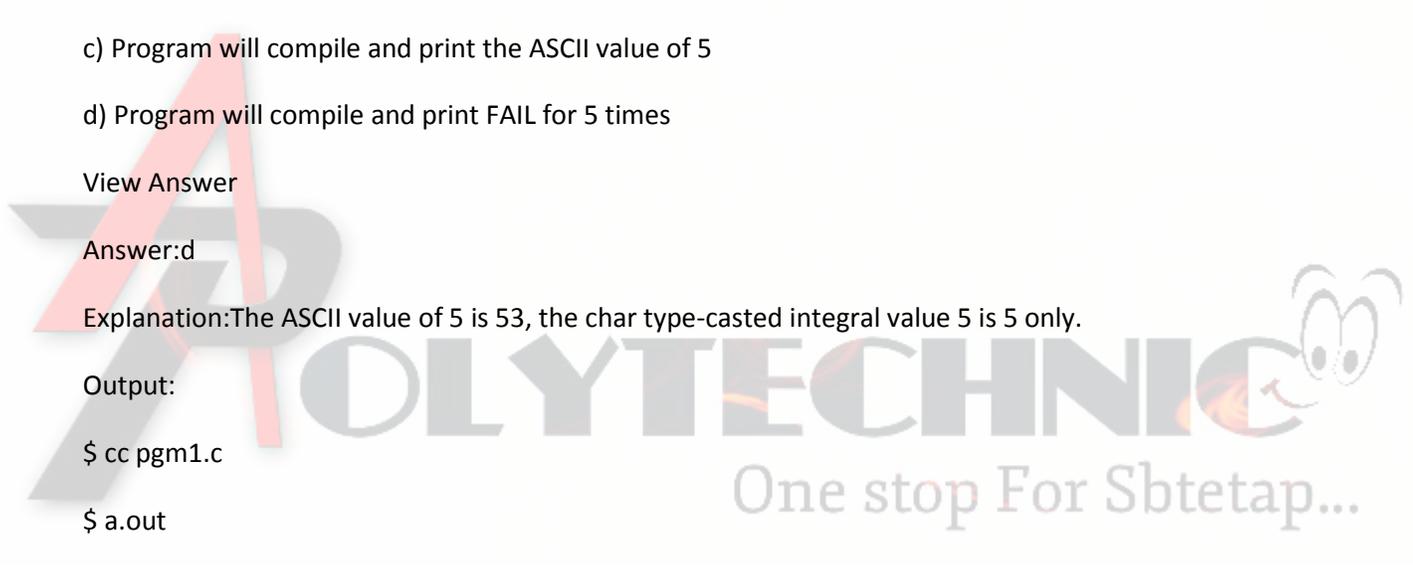
```
$ cc pgm1.c
```

```
$ a.out
```

```
FAILED
```

2. The format identifier '%i' is also used for _____ data type?

- a) char
- b) int



- c) float
- d) double

View Answer

Answer:b

Explanation:Both %d and %i can be used as a format identifier for int data type.

3. Which data type is most suitable for storing a number 65000 in a 32-bit system?

- a) short
- b) int
- c) long
- d) double

View Answer

Answer:a

Explanation:65000 comes in the range of short (16-bit) which occupies the least memory.

4. Which of the following is a User-defined data type?

- a) `typedef int Boolean;`
- b) `typedef enum {Mon, Tue, Wed, Thu, Fri} Workdays;`
- c) `struct {char name[10], int age};`
- d) all of the mentioned

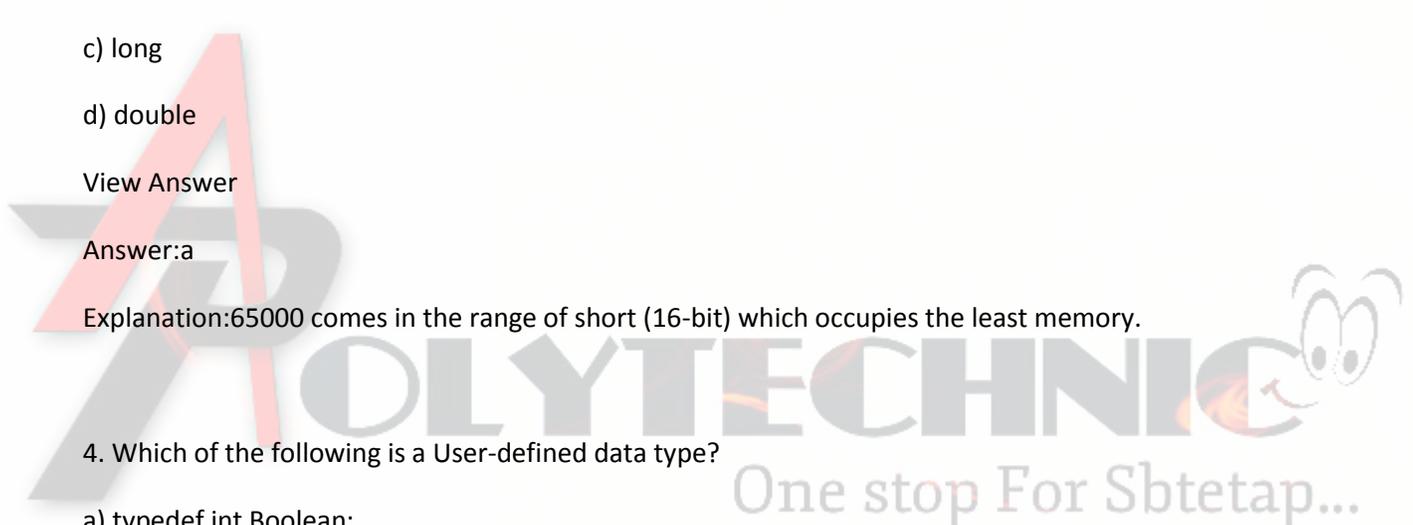
View Answer

Answer:d

Explanation:typedef and struct are used to define user-defined data types.

5. What is the size of an int data type?

- a) 4 Bytes



- b) 8 Bytes
- c) Depends on the system/compiler
- d) Cannot be determined

View Answer

Answer:c

Explanation:The size of the data types depend on the system.

6. What is the output of this C code?

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
char chr;
```

```
chr = 128;
```

```
printf("%d\n", chr);
```

```
return 0;
```

```
}
```

a) 128



b) -128

c) Depends on the compiler

d) None of the mentioned

View Answer

Answer:b

Explanation:signed char will be a negative number.

Output:

```
$ cc pgm2.c
```

```
$ a.out
```

```
-128
```

7. Comment on the output of this C code?

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    char c;
```

```
    int i = 0;
```

```
    FILE *file;
```

```
    file = fopen("test.txt", "w+");
```



```
fprintf(file, "%c", 'a');
```

```
fprintf(file, "%c", -1);
```

```
fprintf(file, "%c", 'b');
```

```
fclose(file);
```

```
file = fopen("test.txt", "r");
```

```
while ((c = fgetc(file)) != -1)
```

```
printf("%c", c);
```

```
return 0;
```

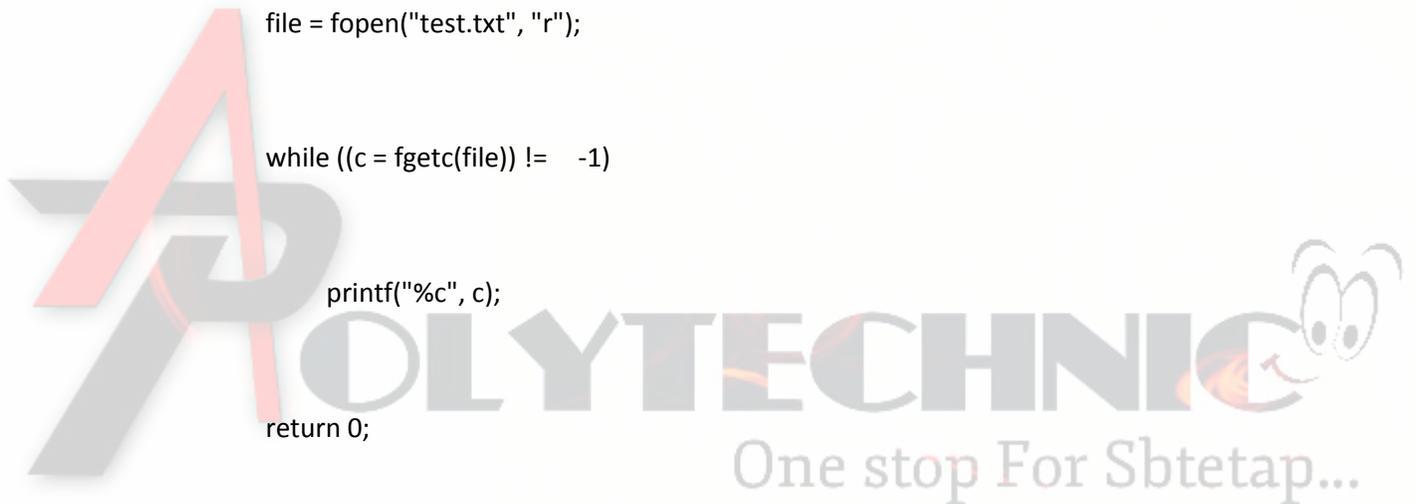
```
}
```

- a) a
- b) Infinite loop
- c) Depends on what fgetc returns
- d) Depends on the compiler

[View Answer](#)

Answer:a

Explanation:None.



Output:

```
$ cc pgm3.c
```

```
$ a.out
```

```
a
```

8. What is short int in C programming?

a) Basic datatype of C

b) Qualifier

c) short is the qualifier and int is the basic datatype

d) All of the mentioned

[View Answer](#)

Answer:c

Explanation:None.

