

CS & IT ENGINEERING

C Programming

Language Processor & Data Types and Operators

DPP 01

Discussion Notes

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Topics to be Covered



Topic

Question

Topic

Solution

[MCQ]



#Q. Consider the following declarations:

✓ ~~P~~: signed short x;

✓ ~~Q~~: unsigned long long int x;

Which of the given declarations is/are CORRECT?

Ans[C]



Only P



Only Q



Both P and Q



Neither P nor Q

#Q. Consider the following program:

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

```
int main()
```

```
{
```

```
    int x=32769;
```

```
    printf("%d", x);
```

```
    return 0;
```

```
}
```

(Assume integer is of 2 bytes)

The value printed is- -32767.

U

↙

32769 ⇒ 32767
-32768 -32767

32769 = x

[MCQ]



#Q. Consider the following program:

```
#include <stdio.h>
int main()
{
    char ch=141;
    printf("%d", ch);
    return 0;
}
```

The output is-

Handwritten notes:
141 ←
ch ← 127
-128 -127, -126
--- -115

Ans [B]

A

Compiler Error

☒ **B**

-115

C

-128

D

141

[MCQ]



#Q. Consider the following function:

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

```
int main()
```

```
{
```

```
    char ch = -134;
```

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

```
    return 0;
```

```
}
```

The output is-

Unsigned value $-134 = 256 - 134$
 $= 122$

122 = z

A

A

B

Garbage

C

Compiler Error

☒ **D**

z

#Q. Consider the following program:

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

```
int main()
```

```
{
```

```
    char ch=125;
```

```
    ch=ch+6;
```

```
    printf("%d", ch);
```

```
    return 0;
```

```
}
```

The output is- -125.

4 Steps
← 127
 $ch = 125 + 6 = \underline{131}$
-128 -127 -126 -125

#Q. Consider the following program:

```
#include <stdio.h>
int main()
{
    int x=-32769;
    printf("%d", x);
    return 0;
}
```

(Assume integer is of 2 bytes)

The output is: 32767.

$$\begin{aligned} x &= -32769 \\ \text{printed value} &= -32769 \\ &= 65536 - 32769 \\ &= \boxed{32767} \end{aligned}$$

[MCQ]



#Q. Consider the following two statements:

✓ P: C standard specifies fixed number of bytes for every data type.

✓ Q: The size order for int, short and long data type is short < int < long

Which of the following statements is/are CORRECT? 2B 4B 8B

int = 2B
int = 4B
=

Ans [C]
=

A

Only P

✓ **B**

Only Q

C

Neither P nor Q

D

Both P and Q

[MCQ]



#Q. In C programming language, after executing the following code what are the values of x, y and z?

```
int x, y = 10, z = 12;
```

```
x = y ++ + z ++;
```

$x = 10 + 12$

$x = 22$

$y = 11, z = 13$

$x = 22$

$y = 11$

$z = 13$

$++y + z++$

$11 + 12 = 23$

$++y + ++z$

$11 + 13 = 24$

A $x = 22, y = 10, z = 12$

~~**B** $x = 24, y = 10, z = 12$~~

~~**C** $x = 24, y = 11, z = 13$~~

D $x = 22, y = 11, z = 13$

Ans [D]



THANK - YOU