CS & IT ENGINEERING

C Programming Language

Data Types and Operators

DPP-01 Discussion

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Programming in C

DPP-01

Data Types in C

Topics to be covered

DPP Discussion notes

[MCQ]

1. Consider the following declarations:

   P: signed short x;

   Q: unsigned long long int x;

   Which of the given declarations is/are CORRECT?

   (a) Only P

   (b) Only Q

   (c) Both P and Q

   (d) Neither P nor Q

short x;
signed short x;
unsigned short x;

Valid:
- short x;
- short int x
- signed short x;;
- signed short int x;

[NAT]

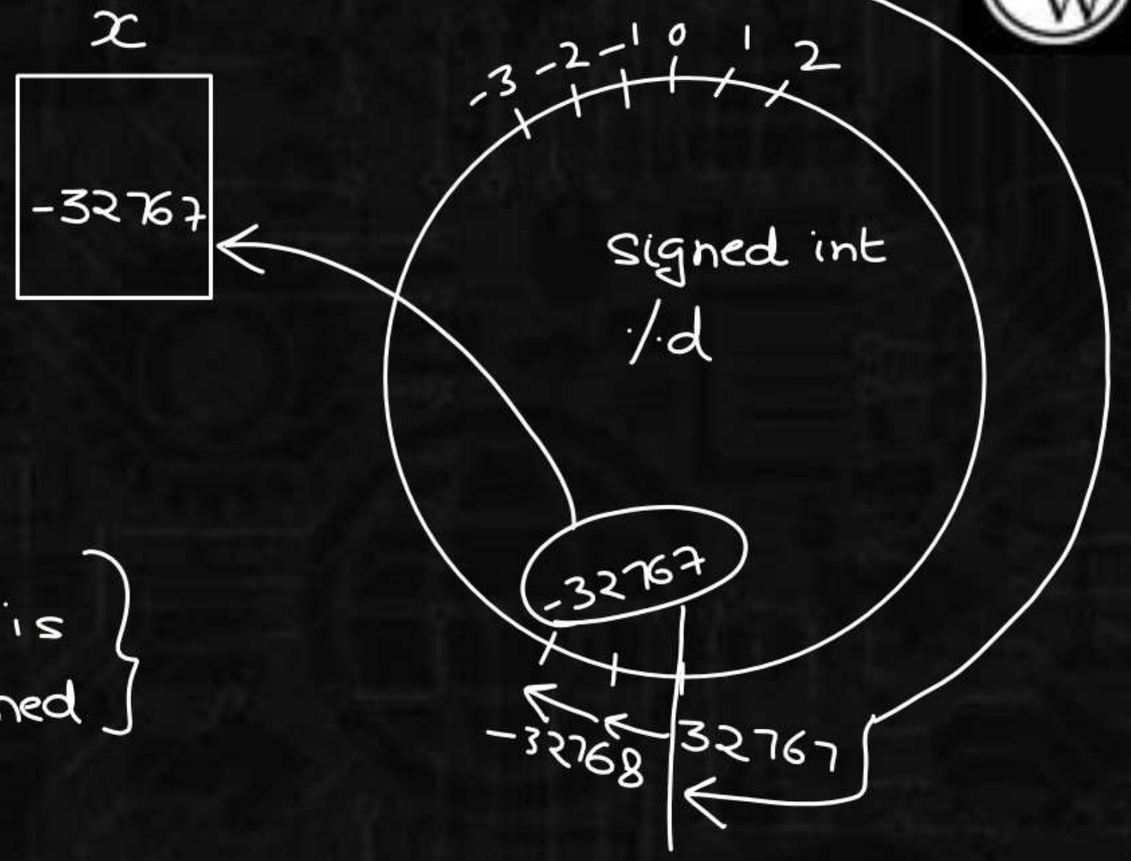
2. Consider the following program:

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

(Assume integer is of 2 bytes)

The value printed is- -32767.

{ by default it is signed }
-32767



[MCQ]

3. Consider the following program:

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

The output is-

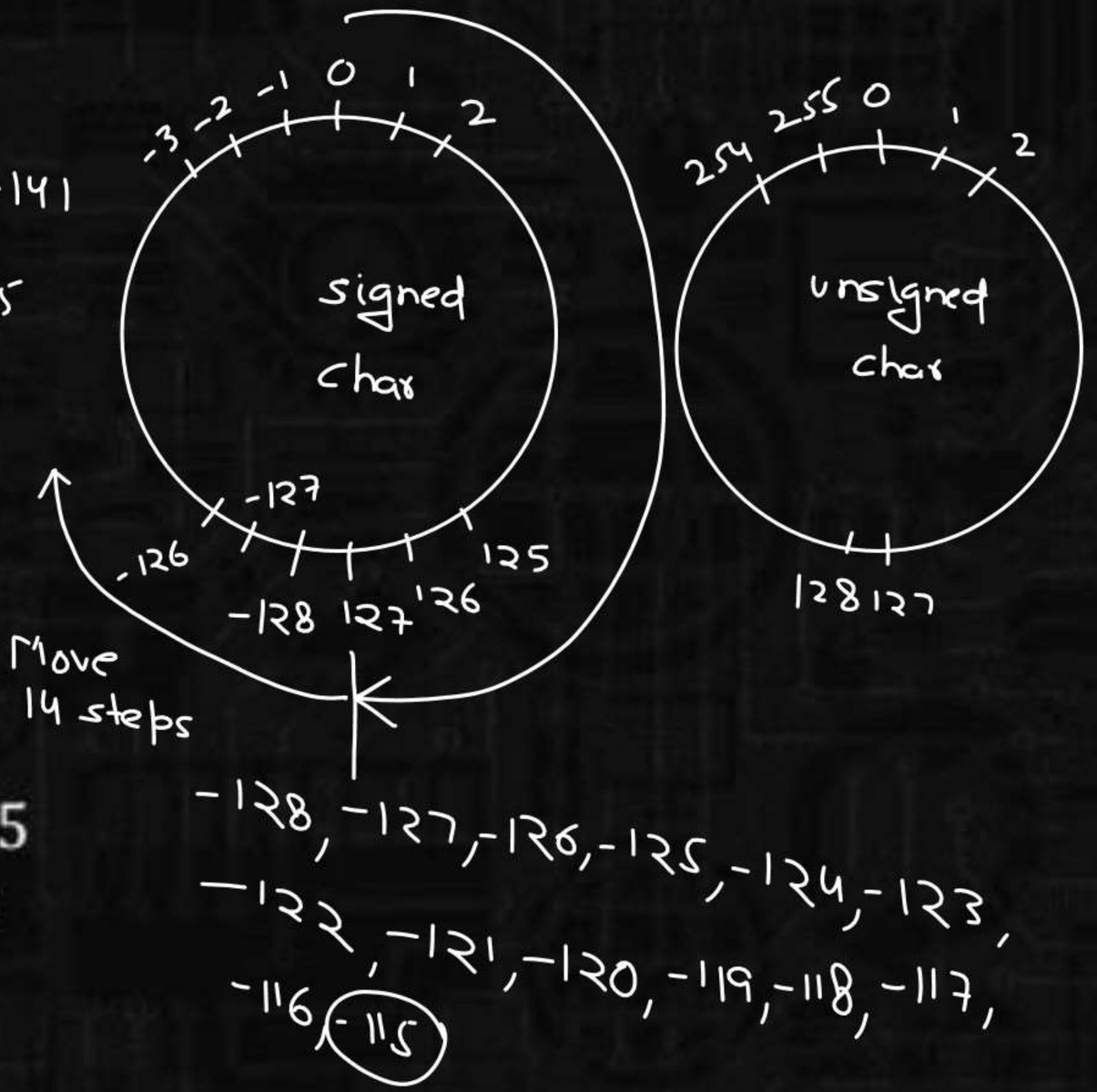
(a) Compiler Error (b) -115

(c) -128 (d) 141

256 - 141

= -115

(127 + 14)



[MCQ]

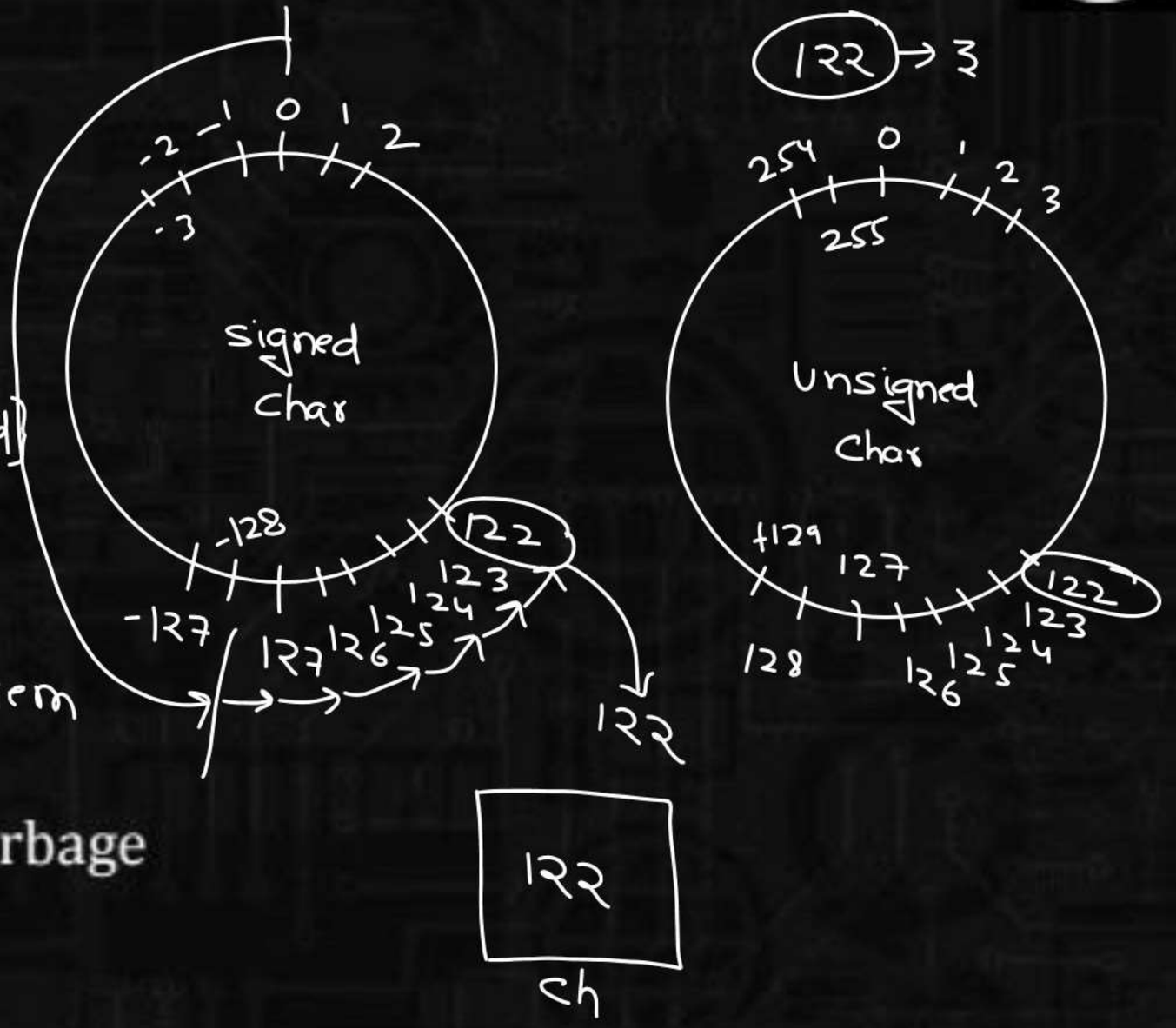
4. Consider the following function:

```
#include <stdio.h>
int main()
{
    char ch = -134;
    printf("%c", ch);
    return 0;
}
```

The output is-

(a) A (b) Garbage

(c) Compiler Error (d) z



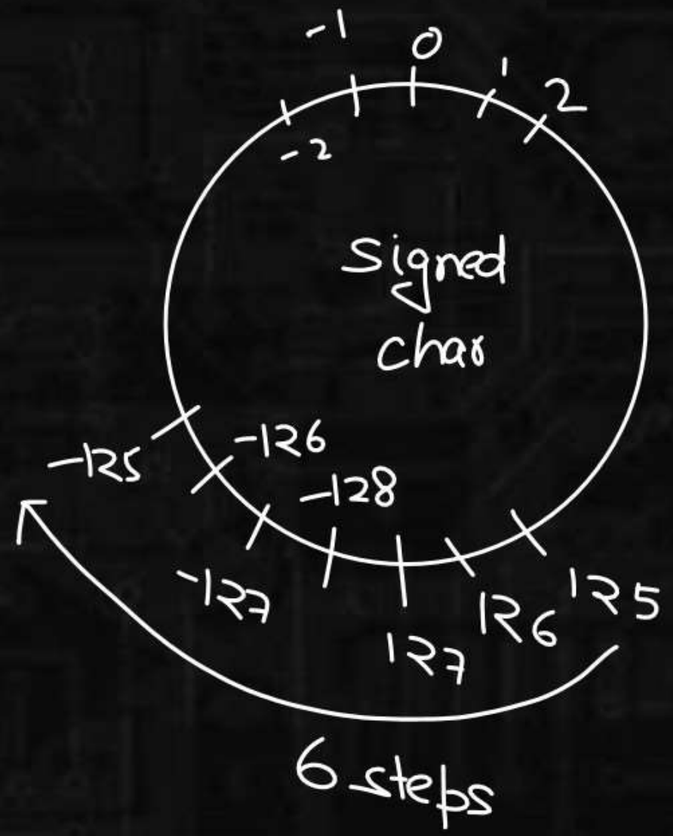
[NAT]

5. Consider the following program:

```
#include <stdio.h>
int main()
{
    char ch=125;
    ch=ch+6;
    printf("%d", ch);
    return 0;
}
```

The output is- _____.

-125



ch

~~125~~
-125

[NAT]

6. 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.

(1 less than -32768)

32767

{ signed int }

32767

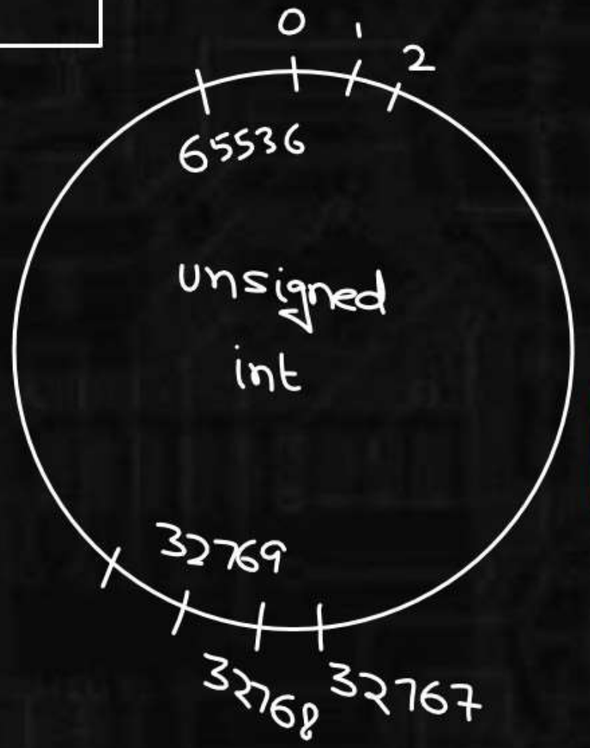
32 bits $\Rightarrow 2^{32}$

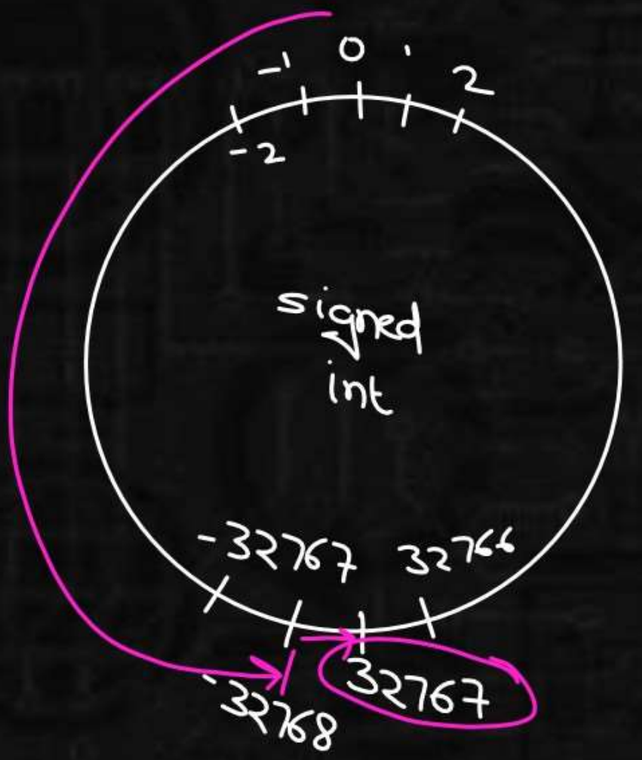
signed int : -2^{31} to $2^{31}-1$

-32768 to $+32767$

unsigned int : 0 to $2^{32}-1$

0 to 65535





[MCQ]

7. 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?

(a) Only P

(b) Only Q

(c) Neither P nor Q

(d) Both P and Q

[MSQ]

8. Which of the following is/are valid declaration of a signed short integer?

(a) short int a;

(b) short a;

(c) signed short a;

(d) signed short int a;

a, b, c, d

signed short int x;

short int x;

signed int } optional

signed short x;

short x;


THANK YOU
GW
SOLDIERS !