```
#include <studio.h>
int main() {
int a,b;
  Printf ("Enter two integer values:");
  Scanf ("%d %d", &a, &b);
  Printf ("In Bitwise AND (a & b) = %d", a&b);
  Printf ("In Bitwise OR (a | b) = %d", a|b);
  Printf ("In Bitwise XOR (a ^ b) = %d", a^b);
  Printf ("In Bitwise NOT (-a) = %d", -a);
  Printf ("In Bitwise NOT (-b) = %d", -b);
Printf ("In Right shift (a >>>1) = %d", a>>1);
Printf ("In left shift (a<<1) = %d", a<<1);
Return 0;
}
```

output:

Enter two integers: 5 3

Bitwise AND (a&b) = 1

Bitwise OR (a|b) = 7

Bitwise XOR (a^b) = 6

Bitwise NOT (-a) = -6

Bitwise NOT (-b) = -4

Right shift (a>>1) = +2

left shift (a<<1) = 0

Q14 What is the output of:

```
int a=5;
Printf ("%d", a++ + ++a);
```

(A) 16

(B) 10

(C) 12

(D) 11 ✓

Expl:- a++ = 5

++a = 7

5 + 6 = 11

Q15 What is the output of:

```
int a=10;
Printf ("%d", a>>2);
```

(A) 5

(B) 4 ✓

(C) 2

(D) 3

Expl:- Right shift divides by $2^2 = 4 \rightarrow 10/4 = 2$, but integer truncates $\rightarrow 2$

$10/4 = 2$.

Expl:- 5 → 0 1 0 1

3 → 0 0 1 1

0 1 0 1 & 0 0 1 1 → 0 0 0 1 → 1

Q12 What is the output of

```
int a=5 , b=3
printf ("%d", a|b);
```

(A) 5

(B) 3

(C) 7

(D) 10.

Expl: 0 1 0 1

0 0 1 1 → 0 1 1 1 → 7

Q13 what is the output of

```
int a=5 , b=3;
printf ("%d", a^b);
```

(A) 6

(B) 7

(C) 16

(D) 8

Expl:- = 0 1 0 1 ^ 0 0 1 1

= 0 1 1 0

= 6

Expl:- Right shift divides by $2^3 \rightarrow$

16/8 = 2

Q9 what is the output of

```
int x=5;
Printf("%d", ++x + x++);
```

(A) 10

(B) 12

(C) 11

(D) 15

Expl:- ++x = 6, x++ = 6

Total = 12

order of evaluation: ++x first (6), then x++ (6). So 6+6=12

Q10 what is the effect of n<<1?

(A) Multiplies n by 2

(B) Divides n by 2

(C) Add 1 to n

(D) Subtracts 1 from n

Q11 what is the output of

```
int a=5, b=3;
Printf("%d", a&b);
```

(A) 7

(B) 1

(C) 8

(D) 2

(A) 9

(B) 10

(C) 16

(D) 20

Expl:- a-- prints 10 first, then decrements to 9

Q6. What is the output of:

```
c int a=7
printf ("%d", --a + a++);
```

(A) 14

(B) 12

(C) 16

D) 13

Expl:- --a → 6, a++ → 6 (then 7) so total

6+6=12.

Q7 What is the output of 10<<1?

(A) 5

(B) 20

(C) 15

(D) 10

Expl:- left side shift doubles → 10×2=20

Q8 What is the output of 16>>3?

(A) 2

(B) 16

(C) 8

Q1. What is the output of the following code?

```
int a = 5
Printf ("%d", ++a);
```

(A) 4 (B) 5 (C) ✓ 6

Ans:- ++a increments first, then prints → output is 6.

Q2 What is the output of:

```
int a=5;
Prinf ("%d", a++);
```

(A) ✓ 5 (B) 6 (C) 4 (D) 10

Expl:- a++ prints first, then increments → output 5, then a becomes 6.

Q3 What is the result of 8 >> 2?

(A) 2 (B) 4 (C) ✓ 8 (d) 16

Expl:- 8 in binary = 1000. Shift right by 2 → 10

Q4 What is the result of 3 << 2?

(A) 6

(B) 8

(C) ✓ 12

(D) 10

Expl:- 3 in binary = 11, shift left by 2 → 1100 = 12

Q5 What is the output of

```
int a = 10;
Printf ("%d", a--);
```