MCQ → incriment, decriment, shif operator

1) What will be the output of the following C code?

```
#include<stdio.h>
int main()
{
int i= 0;
int x = i++, y = ++i;
Printf("%d %d\n", x, y);
return 0;
}
```

a) 0, 2
b) 0, 1
c) 1, 2
d) undefined

⇒ i++ ⟶ Post increment

x = 0+1

X=1

++i ⟶ pre increment

i=0

Y=2

2) What will be the output of the following C code?

```
#include<stdio.h>
int main()
{
int i=10;
int *p = &i;
Printf("%d\n", *p++);
}
```

a) 10 b) 11 c) Garbage value d) Address of i

3) What will be the output of the following C code?

```
#include <stdio.h>
void main()
{
int x = 97;
int y = sizeof(x++);
Printf("x is %d", x);
}
```

a) x is 97 b) x is 98 c) x is 99 d) Run time errors.

4) What will be the output of the following C code.

```
#include <stdio.h>
void main()
{
int x=4, y, z;
y= - -x;
z = x- -;
Printf("%d%d %d", x, y, z);
}
```

a) 323 b) 233 c) 322 d) 234

x = 4

-x (pre-decrement decreases) -

x- (Post decrement decreases)

2, 3, 3

5)

```
#include <stdio.h>
void main()
{
int x = 4;
int *P = & x;
int *k = P++;
int r = P- k;
Printf("%d", r);
```

a) 4 b) 8 c) 1 d) Run time error

6) #include <stdio.h>
void main()
{
int a=5, b=-7, c=0, d;
d = ++a && ++b || ++c;
Printf("\n %d %d %d %d", a, b, c, d);
}

a) 6, -600 b) 6 - 501 c) -6 -601 d) 6 -601

++a = 5+1 = 6
++b = -7+1 = -6
++c = 0 — (11) true
d) ++a && ++b - true - 1

7) #include <stdio.h>
void main()
{
int a = -5;
int k = (a++, ++a);
Printf("%d\n", k);
}

a) -4 b) -5 c) 4 d) -3

a++ = -5 | ++a =
= -4 |

8) #include <stdio.h>
int main()
{
int c = 2 ^ 3;
Printf("%d\n", c);
}

a) 1 b) 8 c) 9 d) 0

0 0 = 0 2 = 0010
1 1 = 0 3 = 0011
1 0 = 1
0 1 = 1

9) #include <stdio.h>
int main( )
{
if(7 & 8)
Printf("Honesty");
if(n 7 & 0x000f)==8)
Printf("is the best policy\n");
}

a) Honesty is the best policy b) Honesty ✓ is the best policy
d) No output.

10) #include <stdio.h>
int main( )
{
int a=2;
if(a>>1)
Printf("%d\n", a);
}

a) 0 b) 1 ✓ 2 d) No output
x>>y is right shift operator
a>>1, 2>>1 gives 1. (non zero value)

11) #include <stdio.h>
int main( )
{
int i, n, a = 4;
scanf("%d", &n);
for(i=0; i<n; i++)
a = a*2;
}

✓ a) Logical shift left b) Logical shift right
c) Arithmetic shift right d) Bitwise exclusive OR

12) #include <stdio.h>
int main()
{
unsigned int a = 10;
a = ~a;
Printf("%d\n", a);
}

a) -9 b) -10 ✓c) -11 d) 10

~a = -(a+1) = -11

13) #include <stdio.h>
int main()
{
int x = 2;
x = x << 1;
Printf("%d\n", x);
}

✓a) 4 b) 1 c) Depend on the compiler d) Depends on the endianness of the machine

14) #include <stdio.h>
int main()
{
int x = -2;
x = x >> 1;
Printf("%d\n", x);
}

15) #include <stdio.h>
int main()
{
if (~0 == 1)
Printf("yes\n");
else
Printf("no\n");
}

a) yes b) no c) Compile time error d) undefined

16) #include <stdio.h>
int main()
{
int y=0;
if(1||(y=1))
Printf("y is %d\n", y);
else
Printf("%d\n", y);
}

a) y is 1 b) 1 c) run time error d) undefined

1||(4=1)

'1=1

17) #include <stdio.h>
int main()
{
int y=1;
if(y&&(y=2))
Printf("true %d\n", y);
else
Printf("false %d\n", y);
}

a) true 2 b) false 2 c) either true2or false2 d) true1

y&&(y=2)
1&&2=0

18) #include <stdio.h>
void main()
{
int x=0;
if(x=0)

```
Printf("Its zero\n");
else
Printf("Its not zero\n");
}
```

a) Its not zero b) Its zero c) Run time error d) None

19)
```
#include <stdio.h>
void main()
{
int k=8;
int x=0==1&&k++;
Printf("%d%d\n", x, k);
}
```

a) 09 b) 08 c) 18 d) 19

=> 0==1 && k++

20)
```
#include <stdio.h>
void main()
{
char a='a';
int x=(a%10)++;
Printf("%d\n", x);
```

a) 6 b) Junk value c) compile time error d) 7

21)
```
#include<stdio.h>
void main()
{
1<2?return 1; return 2;
}
```

a) returns 1 b) returns 2 c) varies d) compile time error

22) #include <stdio.h>
```
void main()
{
unsigned int x=-5;
Printf("%d", x);
```
a) Run time error b) Arries c) -5 d) 5

23) #include <stdio.h>
```
int main()
{
int x=2, y=2;
x/= x/y;
Printf("%d\n", x);
return 0;
```
a) 2 b) 1 c) 0.5 d) Undefined behaviour

24) #include <stdio.h>
```
int main()
{
int x=1, y=0;
x&&= y;
Printf("%d\n", x);
}
```
a) Compile time error b) 1 c) 0 d) undefined behaviour

25) What will be the value of the following expression X = foo() != 1 considering foo() returns 2

a) 2 b) true c) 1 d) 0

26) Operation "a = a * b + a" can also be written as ___

a) a*= b+1; b) (c = a*b, a = c+a) != a; c) a = (b+1)*c)

d) All of the mentioned

27) What will be the final value of c in the following c statement?
(Initial value : c = 2) c <<= 1;

a) c = 1; b) c = 2 c) c = 3 d) c = 4

28) #include <stdio.h>
int main()
{
int a = 1, b = 2
a+= b, --a;
Printf("%d %d", a, b);
}

a) 11 b) 12 c) 21 d) 22

b -= a => b 2 - 1 = 1
a+ = (b) => a 1 + 1 = 2

29) #include <stdio.h>
int main()
{
int a = 4, n, i, result = 0;
Scanf("%d", &n);
for (i = 0; i < n; i++)
result += a;
}

a) Addition of a and n b) Subtraction of a and n
c) Multiplication of a and n d) division of a and n

30) Which of the following is an invalid assignment operator?
a) a %= 10; b) a /= 10; c) a l = 10; d) None of mentioned