① Expression : c = a+b , b = 3 ←

② Compound : {
    c = a+b;
    d = a+b;
} ←

③ Control :

Control statement

```
main()
{
    int a,b;
    printf("      ");
    scanf(      );
    =
    =
    =
    =
}
```

a/b

```
main()
{
    int a,b,c;
    printf      );
    scanf("%d %d",&a,&b);
    c = a/b;
    printf("%d", c);
}
```

a → 6 ✓
b → 2 ✓
c = 3 ✓

a → 5
b → 0
c = ?

→ Instructions are executed in the same order in which they appear within the program.

If statement

if (condition) ☐ ← No semicolon.

condition → expression → The value → True (1) / False (0)

statement ;

if (condition)

condition → True / False

{

if block — True block

}

else

{

}

If-Else statement

if (condition)

statement 1 ; ← True

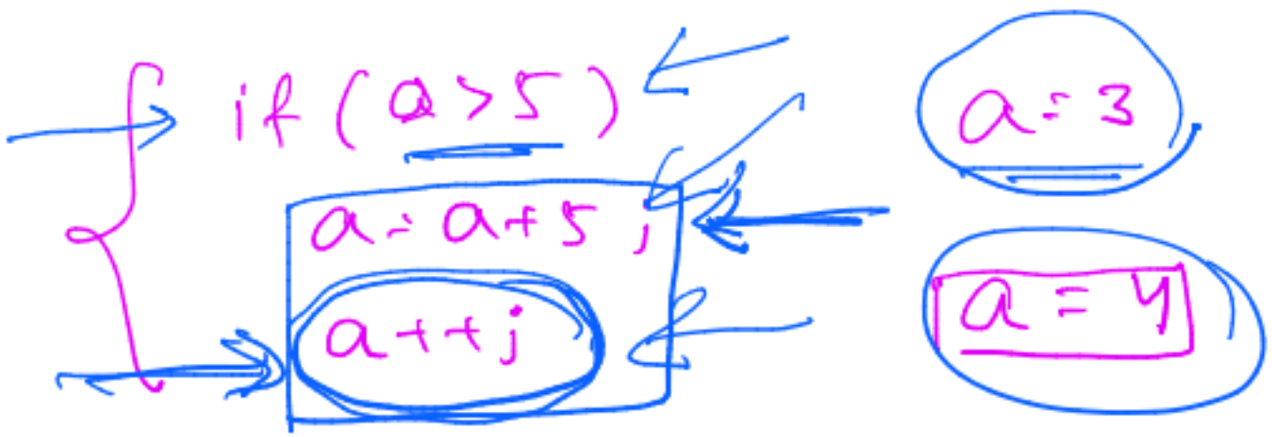
else

statement 2 ; ← False

if (a>5)

a = a+5;

a = 14



if (a>5)

a = a+5;

a = 3

else

a = a-1

→ a = ? (2)

if (condition)

{

stmt 1;

stmt 2;

:

}

True block statements

else

{

stmt 3;

stmt 4;

:

}

False block statements

Nested - if - else

if (condition)

{

if (condition)

stmt 1 ;

else

stmt 2 ;

}

else

{

if (condition)

stmt 1 ;

else

stmt 2 ;

}

Not mandatory

if (cond^n)

if (a > 10)

stmt 1 ;

stmt 2 ;

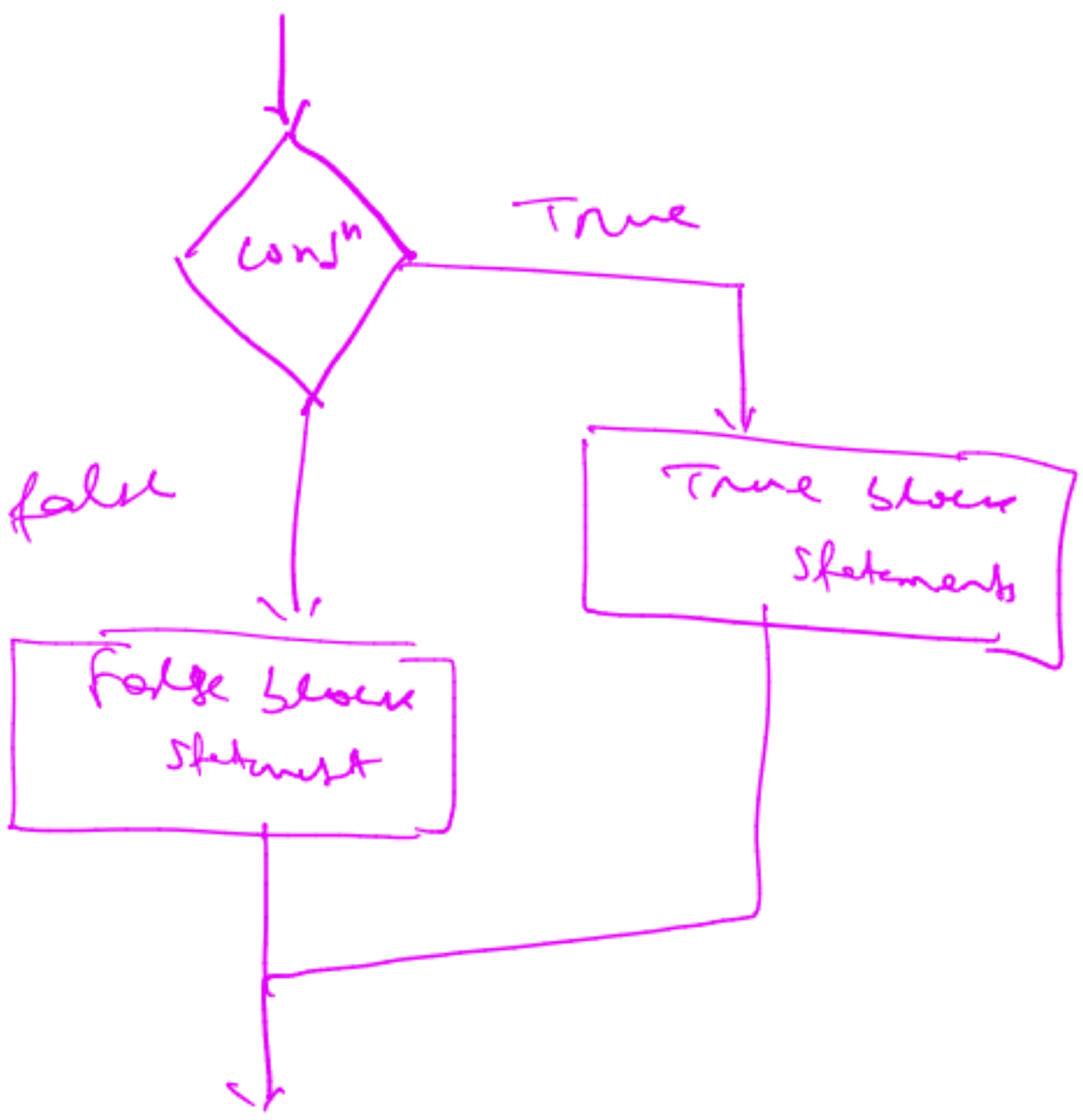
NO

else

stmt 3 ;

if (b != 0)

if else


Cond^n
True
False
True block
Statements
False block
Statements

```
if ( market is open)
{
    if ( mangoes are available)
        Buy it;
    else
        Buy orange.
}
→ else if(      )
{   if
    Order online;
}
```

```
if (a)
{
    if(a>10)
        a++;
    else
        a--;
}
else
{
    a+=10;
    printf("%d", a);
}
```

a=5

→ (4)

(10)

a=0

Chapter-3 : Decision control instructions

```
a = 0.7;
if (a == 0.7)
    printf("GOOD");
else
    printf("BAD");
```

BAD

```
a = 0.5
if (a == 0.5)
```

GOOD

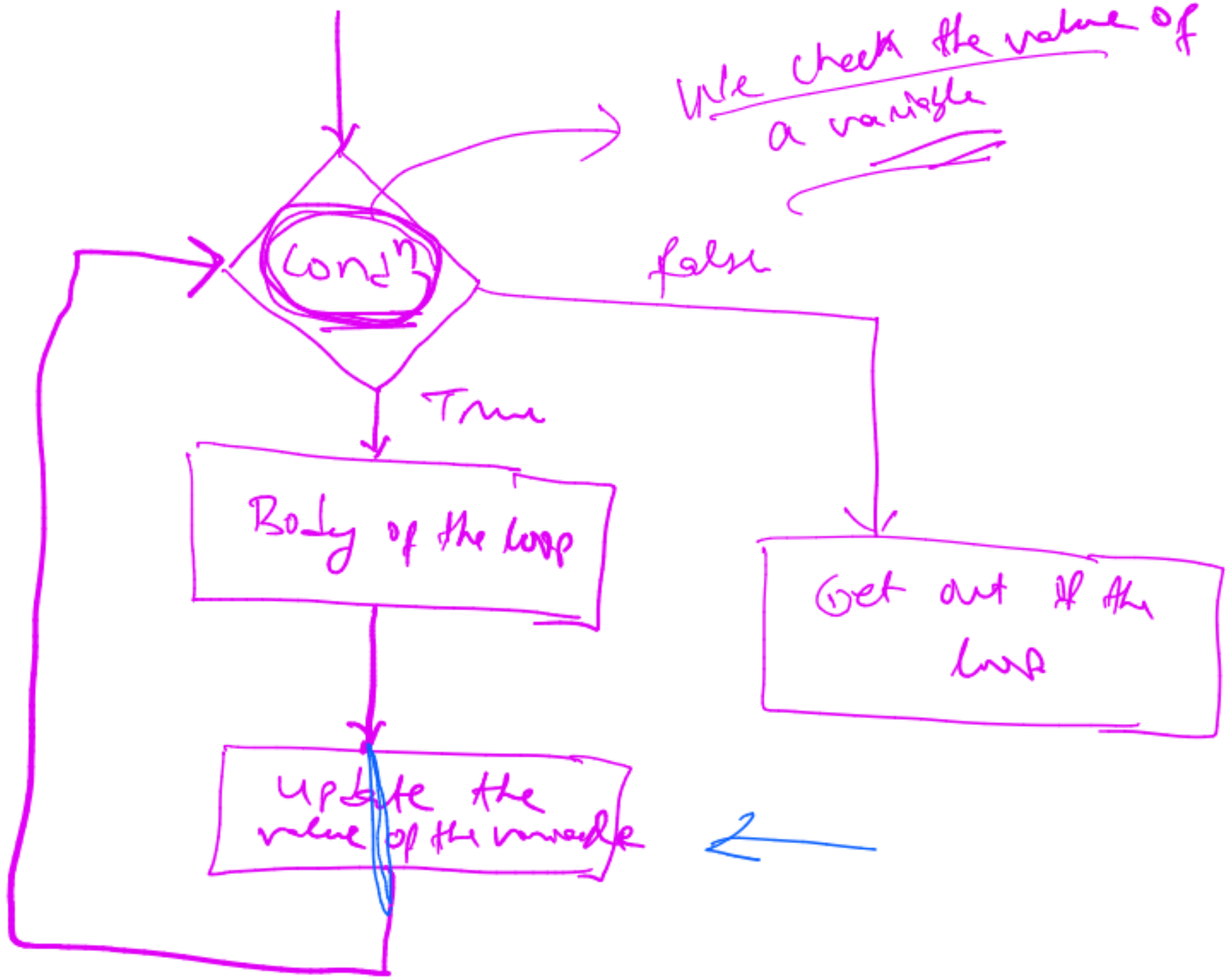
LOOPS ⟶ ① while
② do while
③ for

Khushi Nagar

1 to 5 ⟶ printf("1");
" 2
" 3
" 4
" 5

i=0;
printf("%d", ++i); ← ①
" (++i) ← ②
"

1 to 100


We check the value of a variable
Cond?
false
True
Body of the loop
Get out of the loop
Update the value of the variable

end M