Programming language

Based on level
- High
- Low

Based on paradigm
- Procedure oriented Language (POP)
- Object Oriented Programming (OOP)

Based on · · - - -
- Statically typed ⇒ int x=10;
- Dynamically typed ⇒ x=10;

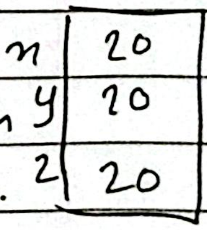
IDE :- Integrated Development Environment)

Structure of C-Programming

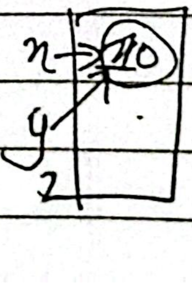
global variable :: lasts entire program

local variable :- lasts till the block lasts

Name of variable is associated with certain memory address in C, C++, java, etc.



In languages like python, value is associated with certain memory address.



Note down the response to the following programs

1.

```
int main()
{
int a=9;
if(a=5)
printf(" It is important to be nice \n");
else
printf("It is nice to be important \n");
return 0;
}
```

Output:- It is nice to be important

2.

```
int main()
{
int a=20, b=3;
if (a<10)
a = a-5;
b = b+5;
printf ("%d %d \n", a, b);
return 0;
}
```

Output: 20 8

3.

```
int main()
{
int a=9, b=0, c=0;
if (!(a<10) && !b || c)
printf ("Difficulties makes us better\n");
else
printf ("Difficulties make us bitter\n");
return 0;
}
```

Output: Difficulties make us bitter.

4.

```
int main()
{
int i=1, j=9;
if (i >=5 && j <5);
i = j+2;
printf("%d\n", i);
return 0;
}
```

Output: 11

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5.
```
int main()
{
int a=0, b=0;
if (!a)
{
b=!a;
if (b)
 a=!b;
}
printf("%d,%d \n", a,b);
return 0;
}
```
Output : 0,1

6.
```
int main()
{
int a=5;
begin:
if (a)
{
printf("%d",a);
a--;
 goto begin;
return 0;
}
}
```
Output:

7.

```
int main()
 {
 int a=6, b=4;
while (a+b)
{
 printf("a=%d  b=%d\n",a,b);
 a=a/2;
 b%=3;
}
 return 0;
 }
```

```
Output : a=6  b=4
         a=3  b=1
         a=1  b=1
         a=0  b=1
           :
           :
           .
```

8

8.

```
int main()
{
 int  i = 10;
 do
 {
 printf ("i= %d\n", i);
   i=i-3;
 }
 while (i) ;
return 0;
}
```

Output :-

9.

```
int  main()
{
int i,j=10;
for ( ; i=j; j- =2)
printf("%d.", j);
 return 0;
}
```