Sit What is mean by reference in cit ? Explain with example extended is a really added data hipe in con . I concept of ext reference is apply cable in att & Java Reference is creen ered os a Denved Bata Type. while he create a reference to an existing variable it is just considered as another name to the variable. It is just another notes so that there is no separate memory affection for to create a reterance the use of a operator (reference operator ASSIGNMENT of is a netrence which refers to integer & contents is eters the vonable no. oret is anothername of an integer 2 the name of engrad e can also create reference which refers to any prophy date con also create reterence which refers to a pointer as a and data type not to by a long int + (20tret) = pt;

Oil What is mean by reference in c+t ? Explain with example Reference is a newly added data type in c+t. The concept of e+t reference is applicable in c+t & Java. Reference is considered as a Derived Data Type.

While we create a reference to an existing variable it is just considered as another name to the variable. It is just another name so that there is no separate memory allocation for reference

To create a reference me use " 2" operator (reference operator)

Ex int no = 11; no 11 noref int & noref = no; 100 104

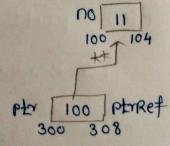
ho is a variable of type integer & initialised with value 11.
noved is a reference which refers to integer & corrently it
refers the variable no.

noret is anothername of an integer & the name of original variable is no.

We can also create reference which refers to any minitive data

we can also create reference which refers to a pointer as a derived data type

Ex: ink * ptr = lno; ink * (lptrRef) = ptr;



```
per is a pointer which points to integer & corrently it
holds the address of no. ptaket is a reference which
refers to integer pointer I comently it refers to the variable ptr.
When we create a reference there is no separate memory
allocation for it. The name of reference as well as the name of
original variable refers to the same memory location due to which
the address & value are the same.
#include < i0stream > or A borgizo od nos rating a sobre los
using namespace old;
int main () no entert a bapter od dos retains & treampieros
to point to another variable reassigned after with salary at
  int no = 11; promoted primary destroyed promoted promoted primary
  int anoref = no;
                 eperator + to access the
  int rahu) = 99;
                                value (kph)
  int Apapau = mabul; a promon soigusso retains A
  int *ptr= lno;
  int * (&ptrRef) = ptr; out dotal pt book no out moderates
  cout<< 66 no :: 99 << no << 10 09; // 11
  coutex 66 noref :: 09<< noref << 66 (n 9); //11
 cootex "no:: << 2nox "6(n)"
 cootec "noref:: " 19 4 & I noref << 66/209;
 cooper (, *bf.;; , << *bf. << (0/20); //11
                                            Can by Value
 cout << 66 *ptr ref;; 99 << *ptr Ref << 66 \n 99; //11
 return 0;
                                         Call by Retence
```

((2) What is the difference blu pointer & reference. Points Pointer Reference Definition A pointer is a variable A reference is an allow that holds the memory for an existing variable address of another variable. Syntax int *ptr = &x; int &ref = x; Null value A pointer can be assigned A reference cannot be non nullptr or NULL it must be initialized Reassignment A pointer can be reassigned A reference cannot be to point to another variable reassigned after initialization Dereferencing Requires dereferencing Automatically dereferences operator * to access the value (*ptr). Size A Pointer occupies memory A reference does not occup extra memory. Modification We can modify what the References are bound to pointer points to one variable. (33) Explain different ways to call a function in C++. There are three ways to call a function in ctt: 1> Call by Value object: " « topriket << " The 2) Call by Address 3> Call by Reference

```
17 call by Value
A copy of the actual argument is passed to the function.
changes made inside the function do not affect the original
27 Call by Address
The address of the actual argument is passed to the function.
changes made inside the function directly affect the original
variable.
37 Call by Reference
A reference to the actual argument is passed to the function.
changes made inside the function directly affect the original
variable.
                        Ater Call by Reterence num = 40
  #include <iostream >
                                    St Drow Symbol Table
  using namespace std;
  void call By Value (intx) {
       x=20;
  void call By Address (in +x) {
```

void call By Address (in t xx) {

*x=30;

void call By Reference (in t lx) {

x=40;

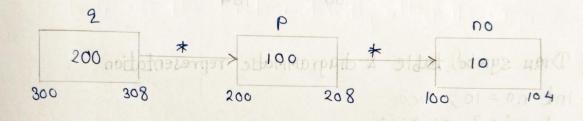
int nom = 10;

void main() &

```
call By Value (nom);
  coutex 66 After Call by Value: nom = 99 << nom << end).
   callByAddress (Inum);
   cou Exc 66 After Call by Address: nom = " Knom Kendl;
   call By Reference (nom);
   coutex 66 After Call by Reference: num = 99 Knomkendl;
  return o;
O/P:- After Call by Value: num=100 bubb of
    After Call by Address: nom = 30
     After Call by Reference: num=40
94] Draw Symbol Table
 Int no = 10; //100
 Int *p = 2no; 1/200
 Int * * 2 = 4p; //300
Name Address
                      Value
               Size
                             DataType
                                       Another Name
        100
 no
                       10
                               int
                                       *P, **9
 *0
       200
                       105
                8
                               int and Ino
**9
       300
                8
                       10
                               int
```

20

Name	Address	Size	Value	Data Type	Another Name
no	100	4	1010	o int	*P
*P	200	8	10	int	Lno
*2	300	8	100	int	20



Q6] Draw symbol table & diagrammatic representation int no = 10; signe Address Size Value Data Type

int & = no;

int & j = no;

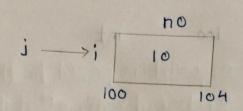
Name	Address	S12e	Value	Data Type	Another Name
no	100	4	10	int	1,1

01 00 204 j 001 10 j 104 Sto] What is wear by (all by 40be & capoly Reforance!

actor Q3

Q7] Draw symbol table & diagrammatic representation
Q8] int no=10; //100
int &i=no;
int &j=i;

Name	Address	Size	Value	Data Type	Another Name
no	100	4	1010	oint	i, j Name

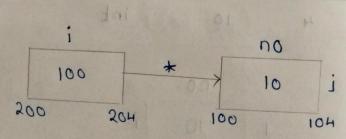


Of Draw symbol table & diagrammatic representation int no = 10; //100
int *i = 2 no; //200

int *(2j) filiptozorgor obograpolo 2 oldet ladere upo

SAOTOS

Name	Address	Size	Value	Data Type	Another Name
ho	100	4	10	int	*i,] *(lj)
*i	200	8	10	int	Lno



Refer 03