HCL C++ paper:
**********

1.which is not an concept of OOPs?
    a.data abstraction.
    b.inheritance.
    c.polymorphism
    d.operator and function overloading.

ans:

2.friend is
    ans:not tansitive nor virtual.

3.main()
{
   int i=4;
   int &j=i;
   i=i*2;
   j=j*j;
   cout<<i<<j;
 }
  ans:64 & 64

 4.class A{
    public:
        int i;
          set_i(){i=10;}
    };
    class B:public A{
       set_i(){i=20;}

     };
     void main()
     {
         A obA;
         B obB;
         A *p;
         p=&obB;
         p->set_i();//call 1
         p=&obA;
         p->set_i();call 2
    }
    which set_i() does call 1 & 2 invoke

    ans: both set_i() class A.
5.int i=400;
  void main()
  {
   int i=200;

```
   cout<<::i<endl<<i;
  }
  what will be the o/p?

  ans:400
      200

6.class String {
   public:
   int len;
   static int num;
 };
 void main()
 {
    String s1,s2;
    s1.len=s2.len=2;s2.num=5;
    s1.len++;s2.num++;s1.num += 2;
    cout<<s1.len<<"-"<<s1.num<<"-"<<s2.len<<"-"<<s2.num;
 }

 what will be the o/p?
 ans:3-8-2-8

7.void main(){
    const char *s1 ="mamama";
    const char *s2 ="ghshshs";
    char *p;
    *s1=NULL; //st 1
    s1=p;// st 2
    *s2=NULL;//st 3
    s2=p;//st 4
}
which of the following is valid st

ans: st 1 & st 3

8.If class D is privately derived from class B then we can access

ans:public members of class B and protected members of class B.

9.which is an pure virtual function
ans: void f() const =0;

10.a class is said to be abstract only is

  ans:it has one pure virtual function

11.which is not an advantage of inline function over an macro

ans:reduces the code size.
```

```
12.class C {
    static int n;

    C()
    {n++;}
    ~c(){n--;}
}
main()
{
    cout<<C::n;
    C *p;

    p = new C[100];
    cout<<C::n;

    delete [] p;
    cot<<C::n;
}
```

what will be o/p?

ans:0-100-0

13.Redirection redirects
    ans: a stram from a file to the screen.

14.when an array name is passed to an function,the function

  ANS: ACCESS EXACTLY THE SAME ARRAY AS THE CALLING PROGRAM &
       refers to the array using a defferent name from that used by th
e
calling progarm.

15.which operator cannot be overloaded?
    ans: .
16.The operation of the asignment operator and that of the copy
constructor are
  ans:similar, except that the copy constructor creates a new object
and
      different,except that they both copy member data.

17.which is not the difference bwt inline function and an macro
function?
     ans:reduces the code size.

HCL C paper:
**********

this is the C test paper of HCL.

1.
```
    #define VAL 1+2
main()
{
    printf("%d %d",VAL/VAL,VAL*3);
}
```
what will be o/p?
ans:5 7

2.A function cannot return ?
ans:arrays.

3.
```
  union A{
    char d[6];
    char *h[5];
    int f[6];
}
```
assume that ur machine supports 4 bytes for an pointer,what will b
e
the size of union?
ans:24.

4.which of the following r mutuallyreferntial structures?
ans:
```
sruct a {
  int afield;
  struct b *bpointer;
 };
struct b {
    int bfield;
    struct a *apointer;
};
```
5.
```
  main()
{
    int a,b;
    a=(10,15);
    b=5,6;
    printf("%d %d",a,b);
}
```
what will be o/p?
ans: 15,5
6.
```
  main()
{
    int i=6;
    if(i++ == 7 || i++ == 8 || i != 9)
          printf("%d",i);
    else
        printf("%d",i);
}
```
what will be o/p?
ans:9

7.which of the following is not an proper program for string copy?

ans:

```
main()
{
    char *s="somestring",*d;
  while(*s)
  {
   *++d=*++s;
  }
}
```

8.

```
main()
{
    int i=6;
    printf("%d %d %d",i++,++i,i++);
}
```

wht will be the o/p?

ans:8 8 6

9.

```
#include<stdio.h>
#define sq(x) x*x*x
main(){
    int a=5;
    printf("\n %d ",sq(a++));
    printf("\n %d ",sq(a));
}
```

what will be o/p?

ans:210 512

10.

```
#include<stdio.h>
main(){
    int a[10]={1,2,3,4,5,6,7,8,9,10};
    int *p,*q;
    p=&a[5];
    q=&a[8];
    printf("%d",q-p);
}
```

what will be the o/p?

ans: 3

11.enum day = { jan = 1 ,feb=4, april, may}

what is the value of may?

a)4 b)5 c)6 d)11

e)none of the above

ans:6

12.

```
Y=10;
if( Y++>9 && Y++!=10 && Y++>10)
 printf("........ Y);
else   printf(""....  )
```

ans : 13

13.which of the function operator cannot be over loaded

a) <=
b)?:
c)==
d)*

ans:  b and d

14.
```
    i=20,k=0;
for(j=1;j<i;j=1+4*(i/j))
{
    k+=j<10?4:3;
}

printf("%d", k);
```

ans  k=4

15.
```
 int i =10
main()
{
    int i =20,n;
    for(n=0;n<=i;)
    {
        int i=10
            i++;
    }
    printf("%d", i);
}
```

ans i=20

16.When u pass a float value to a function it is passed as ?
a.int.
b.double
c.long int.
d.float.(ans)

17.one ques in atod function?

18.What's the outout?

```
    char *cp;
    int *ip;

    cp=(char *)0x100;
    ip=(int *)cp;

    ip++;
    cp++;
```

```
printf("cp = %x ip = %x", cp, ip);
```

Ans:cp = 0x101 ip = 0x102