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Pro Material Series

Section A

HCL Sample Test Paper

1. Which of the following involves context switch, (a) system call
   (b) priviliged instruction
   (c) floating poitnt exception

   (d) all the above
   (e) none of the above Ans: (a)

2. In OST, terminal emulation is done in (a) sessions layer
   (b) application layer
   (c) presentation layer

   (d) transport layer Ans: (b)

3. For a 25MHz processor , what is the time taken by the instruction which needs 3 clock cycles, (a)120 nano secs
   (b)120 micro secs
   (c)75 nano secs

   (d)75 micro secs

4. For 1 MB memory, the number of address lines required, (a)11

   (b)16 (c)22 (d) 24 Ans. (b)

5. Semaphore is used for (a) synchronization
   (b) dead-lock avoidence (c) box

   (d) none Ans. (a)

6. Which holds true for the following statement
   a) 2 member in class A, B should not have same name b) 2 member in class A, C should not have same name c) both
   d) none
   Ans. (a)

7. OLE is used in

class c: public A, public B

a) inter connection in unix
b) interconnection in WINDOWS
c) interconnection in WINDOWS NT

8. Convert a given HEX number to OCTAL
9. Macros and function are related in what aspect? (a)recursion

   (b)varying no of arguments (c)hypochecking
   (d)type declaration

10.Preproconia.. does not do which one of the following (a) macro

(b) conditional compliclation (c) in type checking
(d) including load file

Ans. (c)

11.Piggy backing is a technique for a) Flow control
b) Sequence
c) Acknowledgement

d) retransmition Ans. (c)

12.In signed magnitude notation what is the minimum value that can be represented with 8 bits (a) -128

(b) -255 (c) -127 (d) 0

13.There is an employer table with key fields as employer number data in every n'th row are needed for a simple following queries will get required results.
(a) select A employee number from employee A , where exists from employee B where A employee no. >= B employee having (count(*) mod n)=0

(b) select employee number from employe A, employe B where A employe number>=B employ number group by employee number having(count(*) mod n=0)
(c) both (a) & (b)

(d) none of the above

14.Type duplicates of a row in a table customer with non uniform key field customer number you can see

a) delete from costomer where customer number exists(select distinct customer number from customer having count)

b) delete customer a where customer number in b rowid
c) delete customer a where custermor number in(select customer number from customer a, customer b)

d) none of the above

Section B

1. Given the following statement 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

2. Find the output for the following C program main()

   {int x,j,k; j=k=6;x=2; x=j*k; printf("%d", x);

3. Find the output for the following C program fn f(x)

   { if(x<=0) return;

   else f(x-1)+x; }

4. Find the output for the following C program 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

5. Find the output for the following C program int i =10

   main() {

   int i =20,n; for(n=0;n<=i;)

   {
   int i=10; i++;

   }

printf("%d", i); Ans. i=20

6. Find the output for the following C program int x=5;

y= x&y

7. Find the output for the following C program Y=10;

if(Y++>9 && Y++!=10 && Y++>10) {printf("%d", Y);

else printf("%d", Y); }
Ans. 13

8. Find the output for the following C program f=(x>y)?x:y

a) f points to max of x and y b) f points to min of x and y

c)error Ans. (a)

9. What is the sizeof(long int) (a) 4 bytes

(b) 2 bytes

(c) compiler dependent (d) 8 bytes

10.Which of the function operator cannot be over loaded (a) <=

(b) ?: (c) = (d) *

11.Find the output for the following C program main()

{intx=2,y=6,z=6; x=y==z;

printf(%d",x) }

Section C

Section C (Programming Skills) Answer the questions based on the following program
STRUCT DOUBLELIST
{ DOUBLE CLINKED
INT DET; LIST VOID

STRUCT PREVIOUS; (BE GIVEN AND A PROCEDURE TO DELETE) STRUCT NEW;
(AN ELEMENT WILL BE GIVEN)

}
DELETE(STRUCT NODE) {NODE-PREV-NEXT NODE-NEXT; NODE-NEXT-PREV NODE-PREV; IF(NODE==HEAD)
NODE
}

1. In what case the prev was (a) All cases

   (b) It does not work for the last element (c) It does not for the first element
   (d) None of these

   Answer the questions based on the following program VOID FUNCTION(INT KK)

   {KK+=20; }

   VOID FUNCTION (INT K) INT MM,N=&M

   KN = K KN+-=10; }

2. What is the output of the following program main()

   { int var=25,varp; varp=&var;

   varp p = 10;

   fnc(varp) printf("%d%d,var,varp);

   }
   (a) 20,55 (b) 35,35

   (c) 25,25 (d)55,55

3. Here is the structure declaration of a doubly linked list struct dlink

   {
   int nodeid;
   struct dlink *next; struct dlink *prev; } dlink_t;

A pointer of the head of the linked list is maintained as a global variable, whose definition is dlink_t *head; The funt remove_element(dlink_t *rp), needs to remove the node pointed to the rp and adjust the head. The first node's prev and the last node's next are NULL.
remove_element(dlink_t *rp)

{

rp->prev->next = rp->next; rp->next->prev = rp->prev; if(head == rp)

head = rp->next;

}

Which of the following statement is true about the futions remove_element a) It work when head is the same as rp
b) It does not work when rp is the last element on the list
c) It sets the head of the list correctly
d) It works in all cases
Answer :B) It does...

4. Consider the following function written in c: #define NULL 0

char *
index(sp,c) register char *sp,c;

{ do

{
if(*sp == c) return (sp);

} while (*sp++); return NULL;

}
The first argument sp, is a pointer to a C string. The second argument, c, is a character. This

function scarches for the character c, in the string. If it is found a pointer to that location is returned else NULL is returned. This function works

a) Always
b) Always, but fails when the first byte contais the character c c) works when c is a non NULL character only
d) Works only when the character c is found in the string
ans: a

5. What is printed when this program is executed main()

{
printf ("%d\n",f(7));

} f(X)

```
{
if ( <= 4)

return x;

return f(--x); }
```

a) 4 b) 5 c) 6 d) 7

6.

On a machine where pointers are 4 bytes long, what happens when the following code is executed.

```
main() {

int x=0,*p=0;
x++; p++;
printf ("%d and %d\n",x,p);

}
```

a) 1 and 1 is printed b) 1 and 4 is printed c) 4 and 4 is printed d) causes an exception

ans: a

7. Which of the following is the correct code for strcpy, that is used to copy the contents from src to dest?

```
a) strcpy (char *dst,char *src) {

while (*src)

*dst++ = *src++; }

b) strcpy (char *dst,char *src) {

while(*dst++ = *src++ ) }

c) strcpy (char *dst,char *src) {

while(*src) {

*dst = *src; dst++; src++;
```

} }

d) strcpy(char *dst, char *src) {

while(*++dst = *++src); }

ans:b

8. Consider the following program main()

```
{
int i=20,*j=&i;
f1(j);
*j+=10;
f2(j);
printf("%d and %d",i,*j);

}

f1(k) int *k;

{
*k +=15;

} f2(x) int *x;

{
int m=*x,*n=&m;

*n += 10; }
```

The values printed by the program will be a) 20 and 55
b) 20 and 45
c) 45 and 45

d) 45 and 55 e) 35 and 35

9.
9. what is printed when the following program is compiled and executed?

```
int
func (int x)
```

```
{
if (x<=0)
return(1);
return func(x -1) +x;

} main()

{

printf("%d\n",func(5)); }
```

a) 12 b) 16 c) 15 d) 11

10.COnsider the following of c code in two files which will be linked together and executed .
a.c: int i;

```
main() {

i = 30;
f1(); printf("%d\n",i)

}
```

b.c: static int f1() {

```
i+=10;
```
} which of the following is true ?

a) a.c will fail in compilation phase because f1() is not declared

b) b.c will fail in compilation because the variable i is not declared c) will print 30
d) will print 40
e) a & b

ans: e) a & b

11.consider the following program: # include

```
class x { public:

int a;

x(); };
```

x::x() { a=10; cout class b:public x {

public: b();

};
b::b() { a=20; cout

main () {

b temp; }

what will be the output of this prg? a) 10
b) 20
c) 2010

d) 1020 ans: b