HCL Sample Paper

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15. 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 (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
}
```

Q. 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;
}
```

Q. 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

Section D

1. a=2, b=3, c=6
Find the value of c/(a+b)-(a+b)/c

2. What does the hexanumber E78 in radix 7.

(a) 12455
(b) 14153
(c) 14256
(d) 13541
(e) 131112

Ans. (d)

3. 10 : 4 seconds :: ? : 6 minutes

Ans. 900

4. Q is not equal to zero and k = (Q x n - s)/2.What is n?

(a) (2 x k + s)/Q
(b) (2 x s x k)/Q
(c) (2 x k - s)/Q
(d) (2 x k + s x Q)/Q
(e) (k + s)/Q

5. From the following statements determing the order of ranking

M has double the amount as D
Y has 3 rupess more than half the amount of D
Ans. Data insuffiecient

Questions 6 - 10 are to be answered on the following data

A causes B or C, but not both
F occurs only if B occurs

D occurs if B or C occurs
E occurs only if C occurs
J occurs only if E or F occurs
D causes G,H or both
H occurs if E occurs
G occurs if F occurs
6. If A occurs which of the following must occurs

I. F and G
II. E and H
III. D

(a) I only
(b) II only
(c) III only
(d) I,II, & III
(e) I & II (or) II & III but not both

Ans. (e)

7. If B occurs which must occur

(a) D
(b) D and G
(c) G and H
(d) F and G
(e) J

Ans. (a)

8. If J occurs which must have occured

(a) E
(b) either B or C
(c) both E & F
(d) B
(e) both B & C

Ans. (b)

9. Which may occurs as a result of cause not mentioned

I. D
II. A

III. F

(a) I only
(b) II only
(c) I & II
(d) II & III
(e) I,II & III

Ans. (c)

10. E occurs which one cannot occurs

(a) A
(b) F
(c) D
(d) C
(e) J

Ans. (b)

TCS : C Sample Paper

This test consists of 50 questions. The Set Code for this paper is D.

1. The C language terminator is

(a) semicolon
(b) colon
(c) period
(d) exclamation mark

2. What is false about the following -- A compound statement is

(a) A set of simple statments
(b) Demarcated on either side by curly brackets
(c) Can be used in place of simple statement
(d) A C function is not a compound statement.

3. What is true about the following C Functions

(a) Need not return any value
(b) Should always return an integer
(c) Should always return a float
(d) Should always return more than one value

4. Main must be written as

(a) The first function in the program
(b) Second function in the program
(c) Last function in the program
(d) Any where in the program

5. Which of the following about automatic variables within a function is
correct ?

(a) Its type must be declared before using the variable
(b) Tthey are local
(c) They are not initialised to zero
(d) They are global

6. Write one statement equivalent to the following two statements

```
x=sqr(a);
return(x);
```

Choose from one of the alternatives

(a) return(sqr(a));
(b) printf("sqr(a)");
(c) return(a*a*a);
(d) printf("%d",sqr(a));

7. Which of the following about the C comments is incorrect ?

(a) Ccommentscan go over multiple lines
(b) Comments can start any where in the line
(c) A line can contain comments with out any language statements
(d) Comments can occur within comments

8. What is the value of y in the following code?

```
x=7;
y=0;
if(x=6) y=7;
else y=1;
```

(a) 7
(b) 0
(c) 1
(d) 6

9. Read the function conv() given below

```
conv(int t){
int u;
u=5/9 * (t-32);
return(u);
}
```

What is returned

(a) 15
(b) 0
(c) 16.1
(d) 29

10. Which of the following represents true statement either x is in the range of 10 and 50 or y is zero

(a) x >= 10 && x <= 50 || y = = 0
(b) x<50
(c) y!=10 && x>=50
(d) None of these

11. Which of the following is not an infinite loop ?

(a) while(1)\{ ....}

(b)
```
for(;;)
{
...
}
```

(c)
```
x=0;
do{
/*x unaltered within the loop*/
.....}
while(x = = 0);
```

(d)
```
# define TRUE 0
...
while(TRUE){
```

....}

12. What does the following function print?

```
func(int i)
{ if(i%2)return 0;
else return 1;}
main()
{
int =3;
i=func(i);
i=func(i);
printf("%d",i);
}
```

(a) 3
(b) 1
(c) 0
(d) 2

13. How does the C compiler interpret the following two statements

```
p=p+x;
q=q+y;
```

(a) p=p+x;
q=q+y
(b)p=p+xq=q+y
(c)p=p+xq;
q=q+y
(d)p=p+x/q=q+y

For questions 14,15,16,17 use the following alternatives

a.int
b.char
c.string
d.float

14. '9'

15. "1 e 02"

16. 10e05

17. 15

18. Read the folllowing code

```
# define MAX 100
# define MIN 100
....
....
if(x>MAX)
x=1;
else if(x<MIN)
x=-1;
x=50;
```

if the initial value of x=200,what is the value after executing this code?

(a) 200
(b) 1
(c) -1
(d) 50

19. A memory of 20 bytes is allocated to a string declared as char *s then the following two statements are executed:

```
s="Entrance"
l=strlen(s);
```

what is the value of l ?

(a)20
(b)8
(c)9
(d)21

20. Given the piece of code

```
int a[50];
int *pa;
pa=a;
```

To access the 6th element of the array which of the following is incorrect?

(a) *(a+5)
(b) a[5]
(c) pa[5]
(d) *(*pa + 5}

21. Consider the following structure:

```
struct num nam{
int no;
char name[25];
}

struct num nam
n1[]={{12,"Fred"},{15,"Martin"},{8,"Peter"},{11,Nicholas"}};
.....
.....
printf("%d%d",n1[2],no,(*(n1 + 2),no) + 1);
```

What does the above statement print?

(a) 8,9
(b) 9,9
(c) 8,8
(d) 8,unpredictable value

22. Identify the in correct expression

(a) a=b=3=4;
(b) a=b=c=d=0;
(c)float a=int b=3.5;
(d)int a; float b; a=b=3.5;

23. Regarding the scope of the varibles;identify the incorrect statement:

(a)automatic variables are automatically initialised to 0
(b)static variables are are automatically initialised to 0
(c)the address of a register variable is not accessiable
(d)static variables cannot be initialised with any expression

24. cond 1?cond 2?cond 3?:exp 1:exp 2:exp 3:exp 4;
is equivalent to which of the following?

(a)if cond 1
exp 1;
else if cond 2
exp 2;
else if cond 3
exp 3;
else exp 4;

(b) if cond 1
if cond 2
if cond 3
exp 1;
else exp 2;
else exp 3;
else exp 4;

(c) if cond 1 && cond 2 && cond 3
exp 1 |exp 2|exp 3|exp 4;

(d) if cond 3
exp 1;
else if cond 2 exp 2;
else if cond 3 exp 3;
else exp 4;

25. The operator for exponencation is

(a) **
(b) ^
(c) %
(d) not available

26. Which of the following is invalid

(a) a+=b
(b) a*=b
(c) a>>=b
(d) a**=b

27. What is y value of the code if input x=10

y=5;
if (x==10)

```
else if(x==9)
else y=8;
```

(a)9
(b)8
(c)6
(d)7

28. What does the following code do?

```
fn(int n,int p,int r){
static int a=p;
switch(n){
case 4:a+=a*r;
case 3:a+=a*r;
case 2:a+=a*r;
case 1:a+=a*r;}}
```

(a)computes simple interest for one year
(b)computes amount on compound interest for 1 to 4 years
(c)computes simple interest for four year
(d)computes compound interst for 1 year

29. a=0;
while(a<5)
printf("%d\\n",a++);
How many times does the loop occurs?

(a)infinite
(b)5
(c)4
(d)6

30. How many times does the loop iterated ?

```
for (i=0;i=10;i+=2)
printf("Hi\\n");
```

(a)10
(b) 2
(c) 5
(d) None of these

31. What is incorrect among the following
A recursive function

(a) calls itself
(b) is equivalent to a loop
(c) has a termination condition
(d) does not have a return value at all

32. Which of the following go out of the loop if expn 2 becoming false

(a) while(expn 1)\{...if(expn 2)continue;}
(b) while(!expn 1)\{if(expn 2)continue;...}
(c) do{..if(expn 1)continue;..}while(expn 2);
(d) while(!expn 2)\{if(expn 1)continue;..\}

33. Consider the following program

```
main()
{unsigned int i=10;
while(i>=0){
printf("%u",i)
i--;}
}
```

How many times the loop will get executed

(a)10
(b)9
(c)11
(d)infinite

34.Pick out the add one out

(a) malloc()
(b) calloc()
(c) free()
(d) realloc()

35.Consider the following program

```
main(){
int a[5]={1,3,6,7,0};
```

```
int *b;
b=&a[2];
}
```

The value of b[-1] is

(a) 1
(b) 3
(c) -6
(d) none

```
36. # define prod(a,b)=a*b
main(){
int x=2;
int y=3;
printf("%d",prod(x+2,y-10)); }
```

the output of the program is

(a) 8
(b) 6
(c) 7
(d) None

37.Consider the following program segment

```
int n,sum=1;
switch(n){
case 2:sum=sum+2;
case 3:sum*=2;
break;
default:sum=0;}
```

If n=2, what is the value of sum

(a) 0
(b) 6
(c) 3
(d) None of these

38. Identify the incorrect one

```
1.if(c=1)
2.if(c!=3)
3.if(a<b)then
```

4.if(c==1)

(a) 1 only
(b) 1&3
(c) 3 only
(d) All of the above

39. The format specified for hexa decimal is

(a) %d
(b) %o
(c) %x
(d) %u

40. Find the output of the following program

```
main(){
int x=5, *p;
p=&x
printf("%d",++*p);
}
```

(a) 5
(b) 6
(c) 0
(d) none of these

41.Consider the following C code

```
main(){
int i=3,x;
while(i>0){
x=func(i);
i--; }

int func(int n){
static sum=0;
sum=sum+n;
return(sum);}
```

The final value of x is

(a) 6
(b) 8

(c) 1
(d) 3

43. Int *a[5] refers to

(a) array of pointers
(b) pointer to an array
(c) pointerto a pointer
(d) none of these

44.Which of the following statements is incorrect

(a) typedef struct new{
int n1;
char n2;
} DATA;

(b) typedef struct {
int n3;
char *n4;}ICE;

(c) typedef union{ int n5;
float n6;} UDT;

(d) #typedef union {
int n7;
float n8;} TUDAT;

Hexaware Technologies. hexaware Test Paper

1. Directions for questions 1-10: Expand the following terms

1. ODBC
Ans. Open Database Connectivity.

2. HTML
Ans. Hyper Text Markup Language

3. RISC
Ans. Reduced Instruction Set Computing

4. ASCII
Ans. American Standard Code For Information Interchange

5.ANSI
Ans. American National Standard Institute.

6. XML
Ans. Extended Markup Language

7. FLOPS
Ans. Floating Point Operating Per Second

8. SQL
Ans. Sequential Query Language

9. QBE
Ans. Query By Example

10. ALE
Ans. Address Latch Enable

11. What is lagging in DBMS ?
Ans. Reduced Redundancy.

Directions 12 to 20: For the following questions find the odd man out

12. Unix
    OS/2
    CMOS
    MSDOS

Ans. CMOS

13. Oracle
    Informix
    Sybase
    LISP

Ans. LISP

14. Laser
    Inkjet
    Dotmatirx
    Mouse

Ans. Mouse

15. Dir
    Cls

Csh
Copy

Ans. Csh

16. Bit
Byte
Nibble
Digit

Ans. Digit

17. Hard Disk
Floppy Drive
CD ROM
Cache

Ans. Cache

18. SQL
QUEL
QBE
ORACLE

Ans. Oracle

19. C++
JAVA
VC++
PASCAL

Ans. PASCAL

20. Projection Operation
Selection Operation
Intersection
Set Difference Operation

Ans. Intersection

21. Which of the following is a universal gate ?
(a) OR
(b) AND
(c) XOR
(d) NOR

Ans. NOR

22. The default back end of the VB is
(a) Oracle
(b) Sybase
(c) Informics

Ans. Sybase

23. What is meant by Superconductivity?
Ans. No reistance

24. Viscosity
Ans. Friction

25. What is the Lock Based Protocol used for?
Ans. Concurrency Control in DBMS

Directions for question 25 to 32: Convert the decimal numbers on the left to
the required form

25. 9's complement of 28
Ans. 71

26. Binary of 58
Ans. 111010

27. Octal of 359
Ans.547

28. Hexadecimal of 650
Ans.28A

29. BCD of 18
Ans.0001 1000

30. BCD of 34.8
Ans.0011 0100.1000

31. Excess-3 code of 6
Ans.1001

32. Excess-3 code of 9
Ans.1100

33. If Ax + By = 1F16; Cx + Dy = 2510 .Find the value of x and y

34. Semaphore is used for
(a) synchronization
(b) dead-lock avoidence
(c) box
(d) none

Ans. a

35. For addressing 1 MB memory, the number of address lines required,
(a)11
(b)16
(c)22
(d) 24

Ans. b

36. Which of the following remains in memory temporarily
(a) Resident portion of COMMAND.COM
(b) Transient portion of COMMAND.COM
(c) API
(d) Disk BIOS

Ans. b

37. Pick the odd man out
(a) IO.SYS
(b) MSDOS.SYS
(c) ROM-BIOS
(d) COMMAND.COM

Ans. c

38. OS/2 is a
(a) Single User OS
(b) Multi User OS
(c) Multi Tasking OS
(d) None of these

Ans. c

39. Bootstrap loader program is a program belonging to
(a) ROM startup software
(b) ROM extension software
(c) ROM BIOS software
(d) ROM Basic software

Ans. a

40. The entry of starting cluster of a file is present in
(a) Boot Parameters
(b) Directory
(c) FAT
(d) Partition Table and master boot program

Ans. c

APTITUDE SECTION

Directions for questions 1-6: Find the correct meaning of the following phrases

1. A man of letters

2. A man of straw

3. To be in the air

4. To bite the dust

5. Man of few words

6. Penny wise pound foolish

7. Find the reminder when 333666777888999 divided by 3 or 9 or 11 ?

8. Which is the biggest perfect square amongst the following
15129, 12348, 23716, 20736

9. The greatest area of the following
(a) The radius of circle is 4
(b) The square of diagonal is 4
(c) The square of side is 4

10. The area of the maximum size of the circle described from the 10 square
inch square?

11. In the series 0, 3, 8, 15,__ What is the next number?

12. X < 0, Y <> 0 then what is the possibility that the result is always
positive?
Ans. xy

13. 3 red and 4 blue balls are in a basket. A member of PPTeam is drawing
balls from the basket. What is the probablity
of getting the 3 red balls simultaneously?

14. Let ax2 + bx + c = 0
If the sum of the equal roots is equal to the product of the same roots.Then
which of the following hold true
(a) a + b = 0
(b) a = 0
(c) c = 0
(d) a + c = 0

15. A fold density is 19 times greater than the water and for copper it is 9
times.At what ratio you can mix gold and
copper to get 15 times denser than water.
Ans. 3 : 2

16. Find the value of (1.99)2
Ans. 3.9601

17. There is a room with 6' x 8'. A 1' tile is fixed along the 4 walls in
one row. How many 1" tiles require to
finish the work.
Ans. 24

18. 2 persons can finish a job in 8 days. First person alone can finish the
work in 24 days. How many days
does the second person take to finish the job?
Ans. 12 days

19. A 4" cube is painted in all its faces and then it is cut down into

1"
blocks. How many 1" blocks are there
even without a single face being painted?
Ans. 8

20. A cylinder is inserted in a sphere d/h = 2/3. Find the surface area
of
the cylinder ?

21. In a car wheel, two spokes cover 15 degree. Then for the entire
car,how
many spokes are there?
Ans. 24.

22. What is the angle of degree suspended when two hands of clock
showing
the time 2.30.
Ans. 105 degrees

23. The age difference between two brothers is 3 years. After 6 years
the
ratio between the age is 9:8
What are their ages?
Ans. 21 and 18

24. A person's salary is getting reduced by 20%. What percentage should
be
added to get back his
original salary?
Ans. 25%

25. Two persons start at the same point, walk in opposite directions
with
5km/hr and 5.5km/hr respectively.
What is the distance separated after 2 and half hrs?
Ans. 26.25 (approx)

26. A person starts walking at a speed of 5km/hr through half the
distance,
rest of the distance he covers with a

speed 4km/hr. Total time of travel is 9 hours. What is the maximum distance
he can cover?
Ans. 40km.

27. Initially two cups of same volume are present with milk filled upto 3/5th and 4/5th of their volumes.Water is then filled. Then two mixtures are
mixed. Find the ratio of water to milk in the mixture.
Ans. 3 : 7

28. 16 grams of radioactive material decays into 8 grams in 10 years. How
long will it take to decay to 1 gram ?
Ans. 70 yrs.

29. In a rectangle the length is increased by of the original length . By
what proportion should the
width be reduced so that the area will be the same?
Ans. 33

30. Find the nth number in the series is 1, -3, 5, -7.___
Ans. (-1)*(2n-1)

31. If a square is formed by the diagonal of the square as an edge, what is
the ratio between the area?
Ans. 2

32. The perimeter of a rhombus is 52 units. One of its diagonal is 24 units.What is its second diagonals length?
Ans. 10

33. A cubical rectangular bar has the dimensions with the ratio 5 : 4 : 3.
Its volume is 7500. What is the
surface area of the bar?
Ans. 2350

34. In a class total 34 students, 16 are have a brother, 15 are have sisters, 9 students don't have either
brothers or sisters.Find the number of students having both brother and sisters.
Ans. 6

35. A batsman scored 18 runs in his 18th innings and that makes his average
18. Find his average upto the
17th innings?
Ans. 19

36. 6 women can do 75 units of work in 8 days by working 5hrs/day. In how
many days can 4 women do 30 units
of work by working 8hrs/day ?

37. A persons salary iis decreased by steps of 20%, 15% and 10%. What will
be the percentage decrease, if the
salary is decreased in a single shot?

38. The ratio of the length : breadth : height of a cuboid is 5 : 4: 3, and
the volume is 7500. What will be its surface area ?

39. If the circumference of a circle is 100 units, Then what will the length of the arc described by an angle of 20 degree ?