

HCL Placement Papers

HCL technologies paper { MANIT , bhopal (25th -26th july) }

Application software

Two section were there one section is aptitude (35 questions 35 minutes) and other is general technical awareness (25 qus-25 min)

Each qus have 1 mark for correct and -1/4 for incorrect answer .
General technical awareness is very very simple need not to be send .It was based on c, c++ and computer awareness.

Q1. In a island there are people of two community type 'A' and type 'B'. people of this island can ask question only. Questions asked by type 'A' have correct answer YES and question asked by type 'B' have correct answer 'NO'.

Five question are based on this paragraph.

1) One person asked another person "am I a type of 'B'"? what is type of person who asked question.

- a) type 'A'
- b) type 'B'
- c) either 'A' or 'B'
- d) such question can not be asked.

2) person of type 'A' asked to his wife " are we of same type" . What is type of his wife?

Three more question were there of same type read this paragraph carefully so that this does not take much time.

Q2 . There are six people A,B,C,D,E,F and five cars .cars are stand in sequence numbered 1 to 5 and each car can be share by two persons only.and conditions are

- 'A' will share car
- 'B' will sit alone
- 'F' will not share car with 'D' and 'E'
- 'D' will drive car 3rd or 4th car
- 'E' will drive a car which is behind the car with vacant seat.

Following are the qus based on this para

6) if 'D' are sit on the 3rd car how many different arrangement will be there.

total 7- 8 question asked from this paragraph search this qus. in GRE book. I don't remember the qus. And there ans because this was very tough

Q3

DATA SUFFICIENCY

Direction:Read the following instructions carefully and answer questions 11-15 given below:

Each question below is followed by two numbered facts. You have to determine whether the data given in the statement is sufficient for answering the question. Choose one of the following choices best fitting the question and mark A,B,C,D or E as explained below.

- (A) if statement 1 alone is sufficient to answer the question, but statement 2 is not sufficient.
- (B) If statement 2 alone is sufficient to answer the question, but statement 1 is not sufficient.
- (C) If both statements together are needed to answer the question, but neither statement alone is sufficient.
- (D) If either statement by itself is sufficient to answer the question.
- (E) If enough facts are not available to answer the question.

13. Is $X = Y$?

- (1) $X - Y = X^2 - Y^2$ ans:()
- (2) X and Y are greater than 1.

14. Is CAB a code word in language Q?

- (1) ABC is the base word.
 - (2) If c immediately follows B, then C can be moved to the front of the code word to generate another word?
- ans:()

15. A dress was initially listed at a price that would have given the store a profit of 20 percent of the wholesale cost. What was the wholesale cost of the dress?

- (1) After reducing the asking price by 10 percent, the dress sold for a net profit of 10 dollars.
 - (2) The dress sold for 50 dollars.
- ans:()

16. If X and Y do not equal 0, is X/Y an integer?

- (1) X is prime

(2) Y is even ans:()

17. What is the price of a banana?

(a) 14 banana and 35 oranges cost Rs. 84

(b) with a 50% discount on banana, Rs. 12 can buy 4 bananas and 5 oranges.

ans:()

two deadly questions on series.

Some qus on fill in the blanks .

6. $A+B=C+D$; $A+C=B+D$; $2A>B+D$; $2C<B+D$; Find the arrangements of the letters

like

e.g: $A>B>C>D>$ etc and all.

Q.NO.1&2

A FACTORY produces a product (measured in cubic feet) over seven days as per the following schedule:

Day1 Day2 Day3 Day4 Day5 Day6 Day7

150 180 120 250 160 120 150

The finished goods are to be transported to the market by a truck having a capacity of 2000 cubic feet. Any finished goods (ready at the end of the day) retained overnight at the factory will incur a storage cost of rs.5 per cubic foot for each night of storage. The hiring cost for the truck is rs.1000 per day.

1.If the total cost of transportation and storage is to be minimized, the truck should operate on

(a) 2nd,4th,6th and 7th days

(b) only the 7th day

(c) 2nd,4th,5th and 7th days

(d) only on 4th and 5th days

(e) none of these

ans:()

2.if the storage cost reduces to re.0.80per cubic foot per night,the truck should operate on

(a)2nd,4th,5th and 7th days

(b)only the 7th day

- (c) 2nd, 4th, 5th and 7th days
 - (d) only on 4th and 5th days
 - (e) none of these
- ans: ()

6. if $a+d=b+c$, $a+e=c+d$, $2c=b+d$, then

- (a) $a>b>c>d>e$
- (b) $b>a>d>c>e$
- (c) $d>b>c>a>e$
- (d) $b>c>d>e>a$ ans: ()
- (e) none of these

Q21. three students appear in a test but no one write their name on answer sheet .and they submitted their sheet to teacher . when teacher distributed their answer sheet . what is probability that no one get their own answer sheet.

HCL Sample Paper

Sample Test Paper

1. Which of the following involves context switch,

- (a) system call
- (b) privileged instruction
- (c) floating point exception
- (d) all the above
- (e) none of the above

Ans: (a)

2. In OST, terminal emulation is done in

- (a) session 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 avoidance
- (c) box
- (d) none

Ans. (a)

6. Which holds true for the following statement

class c: public A, public B

- 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. Question related to java

8. OLE is used in

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

9. Convert a given HEX number to OCTAL

10. Macros and function are related in what aspect?

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

11.Preproconia.. does not do which one of the following

- (a) macro
- (b) conditional complicitation
- (c) in type checking
- (d) including load file

Ans. (c)

12. Piggy backing is a technique for

- a) Flow control
- b) Sequence
- c) Acknowledgement
- d) retransmission

Ans. (c)

13. In signed magnitude notation what is the minimum value that can be represented with 8 bits

- (a) -128
- (b) -255
- (c) -127
- (d) 0

14. 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. \geq B employee having (count(*) mod n)=0
- (b) select employee number from employee A, employee B where A employee number \geq B employee number group by employee number having(count(*) mod n=0)
- (c) both (a) & a

HCL TECHNOLOGIES

Ist section of the Question is as such in the placement papers.com

Section II - C Programming

1. Which of the following about the following two declaration is true

- i) int *F()
- ii) int (*F)()

Choice :

- a) Both are identical
- b) The first is a correct declaration and the second is wrong
- c) The first declaration is a function returning a pointer to an integer and the second is a pointer to function returning int
- d) Both are different ways of declaring pointer to a

function

Answer : c

2. What are the values printed by the following program?

```
#define dprint(expr) printf(#expr "=%d\n",expr)
```

```
main()
{
int x=7;
int y=3;
dprintf(x/y);
}
```

Choice:

a) #2 = 2 b) expr=2 c) x/y=2 d) none

Answer: c

3. Which of the following is true of the following program

```
main()
{
char *c;
int *p;
c =(char *)malloc(100);
ip=(int *)c;
free(ip);
}
```

ans: The code functions properly releasing all the memory allocated

4.output of the following.

```
main()
{
int i;
char *p;
```

```
i=0X89;
p=(char *)i;
p++;
printf("%x\n",p);
}
ans:0X8A
```

5.
which of the following is not a ANSI C language keyword?

ans:Function.

6. When an array is passed as parameter to a function, which of the following statement is correct

choice:

- a) The function can change values in the original array
- b) In C parameters are passed by value. The function cannot change the original value in the array
- c) It results in compilation error when the function tries to access the elements in the array
- d) Results in a run time error when the function tries to access the elements in the array

Answer: a

7. The type of the controlling statement of a switch statement cannot be of the type

- a) int b) char c) short d)float e) none

Answer : d

8. What is the value of the statement $(3^6) + (a^a)$?

- a) 3 b) 5 c) 6 d) a+18 e) None

Answer : b

9. What is the value assigned to the variable X if b is 7 ?

$X = b > 8 ? b << 3 : b > 4 ? b >> 1 : b;$

a) 7 b) 28 c) 3 d) 14 e) None

ans: c

10. Which is the output produced by the following program

```
main()
{
int n=2;
printf("%d %d\n", ++n, n*n);
}
```

a) 3,6 b) 3,4 c) 2,4 d) cannot determine

Answer : b

11. What is the output of the following program?

```
int x= 0x65;
main()
{
char x;
printf("%d\n",x)
}
```

a) compilation error b) 'A' c) 65 d) unidentified

12. What is the output of the following program

```
main()
{
int a=10;
int b=6;

if(a=3)
b++;
printf("%d %d\n",a,b++);
}
```

a) 10,6 b)10,7 c) 3,6 d) 3,7 e) none

Answer : d

13. What can be said of the following program?

```
main()
{
enum Months {JAN =1,FEB,MAR,APR};
Months X = JAN;
if(X==1)
{
printf("Jan is the first month");
}
}
```

- a) Does not print anything
- b) Prints : Jan is the first month
- c) Generates compilation error
- d) Results in runtime error

Answer: b

14. What is the output of the following program?

```
main()
{
char *src = "Hello World";
char dst[100];
strcpy(src,dst);
printf("%s",dst);
}
strcpy(char *dst,char *src)
{
while(*src) *dst++ = *src++;
}
```

- a) "Hello World" b)"Hello" c)"World" d) NULL e) unidentified

Answer: may be d

15. What is the output of the following program?

```
main()
{
int l=6;
switch(l)
{ default : l+=2;
case 4: l=4;
case 5: l++;
break;
```

```
}  
printf("%d",1);  
}  
a)8 b)6 c)5 d)4 e)none
```

Answer : c

16. What is the output of the following program?

```
main()  
{  
int x=20;  
int y=10;  
swap(x,y);  
printf("%d %d",y,x+2);  
}  
swap(int x,int y)  
{  
int temp;  
temp =x;  
x=y;  
y=temp;  
}
```

a)10,20 b) 20,12 c) 22,10 d)10,22 e)none

Answer:d

17. What is the output of the following problem ?

```
#define INC(X) X++  
main()  
{  
int X=4;  
printf("%d",INC(X++));  
}
```

a)4 b)5 c)6 d)compilation error e) runtime error

Answer : d

18. what can be said of the following

```
struct Node {  
char *word;  
int count;
```

```
struct Node left;
struct Node right;
}
```

- a) Incorrect definition
- b) structures cannot refer to other structure
- c) Structures can refer to themselves. Hence the statement is OK
- d) Structures can refer to maximum of one other structure

Answer :c

19. What is the size of the following union.
Assume that the size of int =2, size of float =4 and size of char =1.

```
Union Tag{
int a;
float b;
char c;
};
```

a)2 b)4 c)1 d) 7

may be b

20) What is the output of the following program? (. has been used to indicate a space)

```
main()
{
char s[]="Hello,.world";
printf("% 15.10s",s);
}
```

- a)Hello,.World...
- b)....Hello,.Wor
- c)Hello,.Wor....
- d)None of the above

may be c

9)

- (1) The combined length of the longer two pieces of rope is 12 metres.
- (2) The combined length of the shorter two pieces of

rope is 11 metres.

(A) (B) (C) (D) (E)

10) A certain company paid bonuses of Rs. 125 to each of its executive employees and Rs 75 to each of its nonexecutive employees. If 100 of the employees were nonexecutive, how many were executive?

- 1) The company has a total of 120 employees
- 2) The total amount that the company paid in bonuses to its employees was Rs.10,000

(A) (B) (C) (D) (E)

11. What fraction of his salary did Mr. Johnson put into savings last week ?

- 1) Last week Mr.Johnson put Rs 17 into savings.
- 2) Last week Mr.Johnson put 5% of his salary into savings.

(A) (B) (C) (D) (E)

12. Each M-type memory unit will increase the base memory capacity of a certain computer by 3 megabytes. What is the base memory capacity, in megabytes, of the computer ?

- 1) 2 M-type memory units will increase the computer's base memory capacity by 300%
- 2) The memory capacity of the computer after 2-M type memory units are added to the base memory capacity, is 1.6 times the memory capacity of the computer after 1 M-type unit is added to the base memory capacity.

(A) (B) (C) (D) (E)

13. What fractional part of the total surface area of cube C is red?

- 1) Each of 3 faces of C is exactly $\frac{1}{2}$ red
- 2) Each of 3 faces of C is entirely white

(A) (B) (C) (D) (E)

SECTION C

Instructions ALL NUMBER USED ARE REAL NUMBERS
FOLLOWING
EACH QUESTIONS ARE FIVE POSSIBLE ANSWERS LABELED
A).B).C).D)&E).TICK THE BEST CHOICE.

14. How many of the integers between 25 and 45 are even ?

(A)21 (B)20 (C)11 (D)10 (E)9

Answer:d

15. If taxi fares were Rs 1.00 for the first $\frac{1}{5}$ mile and Rs 0.20 for each $\frac{1}{5}$ miles thereafter. The taxi fare for a 3-mile ride was

(A)Rs 1.56 (B)Rs 2.40 (C)RS 3.00 (D)Rs 3.80 (E)Rs 4.20

Answer :d

16. A computer routine was developed to generate two numbers (x,y) the first being a random number between 0 and 100 inclusive, and the second being less than or equal to the square root of the first. Each of the following pair satisfies the routine EXCEPT

(A) (99.10) (B) (85.9) (C) (50.7) (D) (1.1) (E) (1.0)

Answer : A

17. A warehouse had a square floor with area 10,000 sq.meters. A rectangular addition was built along one entire side of the warehouse that increased the floor by one-half as much as the original floor. How many meters did the

addition extend beyond the original buildings ?

(A)10 (B)20 (C)50 (D)200 (E)500

Answer: c

18. A digital wristwatch was set accurately at 8.30 a.m and then lost 2 seconds every 5 minutes. What time was indicated on the watch at 6.30 p.m of the same day if the watch operated continuously that time ?

(A)5:56 (B)5:58 (C)6.00 (D)6.23 (E)6.26

Answer :E

19) A 5 litre jug contains 4 litres of a salt water solution that is 15 percent salt. If 1.5 litres of the solution spills out of the jug, and the jug is then filled to capacity with water, approximately what percent of the resulting solution in the jug is salt?

(A)7.5% (B)9.5% (C) 10.5% (D)12% (E)15%

Answer :A

20) A plane travelled K miles in the first 96 miles of flight time. If it completed the remaining 300 miles of the trip in 1 minute, what was its average speed in miles per hour for the entire trip ?

(A)
(B)
(C)
(D)
(E)

Answer : $(300+k)/97 * 60$

21) A merchant sells an item at a 20 percent discount. but still makes a gross profit of 20 percent of the cost. What percent of cost would be gross profit on the item have been if it had been sold without the

discount?

(A)20% (B)40% (C)50% (D)60% (E)66.6%

Answer :c

22) A millionaire bought a job lot of hats $\frac{1}{4}$ of which were brown. The millionaire sold $\frac{2}{3}$ of the hats including $\frac{4}{5}$ of the brown hats. What fraction of the unsold hats were brown.

(A) $\frac{1}{60}$ (B) $\frac{1}{15}$ (C) $\frac{3}{20}$ (D) $\frac{3}{5}$ (E) $\frac{3}{4}$

Answer :c

23) How many integers n greater than and less than 100 are there such that, if the digits of n are reversed, the resulting integer is $n+9$?

(A)5 (B)6 (C)7 (D)8 (E)9

Answer :D

24) An investor purchased a shares of stock at a certain price. If the stock increased in price Rs 0.25 per share and the total increase for the x shares was Rs 12.50, how many shares of stock had been purchased ?

(A)25 (B)50 (C)75 (D)100 (E)125

Answer :B

25) At a special sale, 5 tickets can be purchased for the price of 3 tickets. If 5 tickets are purchased at the sale, the amount saved will be what percent of the original price of the 5 tickets?

(A)20% (B)33.3% (C)40% (D)60% (E)66.6%

Answer :c

26) Working independently, Tina can do a certain job in 12 hours. Working independently, Ann can do the same job in 9 hours. If Tina works independently at the job for 8 hours and then Ann works independently, how many hours will it take Ann to complete the remainder of the jobs?

(A) $\frac{2}{3}$ (B) $\frac{3}{4}$ (C) 1 (D) 2 (E) 3

Answer :E

27) A decorator bought a bolt of d m number of red chips in any one stack ?

(A) 7 (B) 6 (C) 5 (D) 4 (E) 3

Answer :C

SECTION III - ANALYSIS PROGRAM SEGMENTS

1) 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 function `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 function 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

2) 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 searches 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 contains 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
answer: a

03) What is printed when this program is executed

```
main()
{
printf ("%d\n",f(7));
}
f(X)
{
if (x<= 4)
return x;
return f(--x);
}
```

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

answer: a

04) 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

05) 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);  
}
```

answer:b

6) 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

7) 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

08) 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

answer: e

9) Consider the following prg

```
void funca (int *k)
{
*k += 20
}
void funcb (int *x)
{
int m=*x,*n = &m;
*n+=10;
}
main()
{
int var = 25,*varp=&var;
funca(varp);
*varp += 10;
funcb(varp);
printf ("%d and %d\n",var,*varp);
}
```

The values printed when the above prg is compiled and executed

are:

- a) 20 and 55
- b) 20 and 45
- c) 45 and 55
- d) 55 and 55
- e) 35 and 35

answer: d

10) consider the following program:

```
# include
class x {
public:
int a;
x();
};
x::x() { a=10; cout<< q if 10) d ans: min 20 hr 3 e) 30 d) 2 c) 53 1 b)
```

26 a) units? n produce to alone V take it would long how hours. in units time, same the at but independently workers W, and Workers 5 produces W Worker 9) b answer: $10^{10} 2(10)^8 10^8 2(10)^6 2(10)^4 10^4$

$10^2(10^8+10^8) = \dots$ 8) $-1 -11 0 11 a+b = c$ - $\dots c$
 then $a=20$; 7) 150 240 360 600 900 min.? 6 make machine can copies many
 How rate, this At seconds. 4 every 10 prototyping HCL 6) Answer: 7 8 ?
 represent E does digit what \dots A B C D X holds:
 multiplication following that 9 between digits of one each A,B,C,D,E
 5) Given answer: d 13112 13541 14256 14153 12455 radix correspond E78
 number hex What 04) things picture wrong present sometimes Statistics
 abilities. women's about are chauvinists Men than cautiously more drive
 Certainly Women frequently drivers better actually anything conclude
 there not is information sufficiently concluded be may Hence drivers.
 women accidents involved men indicate 03) M Y given from determined
 can't It amounts? these ordering correct Which respectively, M,D,Y
 Mohan,Deep,Yogesh by earned amounts If deep. as much half rs.3 Yogesh
 Deep. twice Mohan 2) S Can't R Q P murderer? who murderer, them false
 statement above only Assuming murderer?. ?R s: murder?. commit didn't ?Q
 r: time with cards playing was ?I q: theatre gone had p: They statement.
 makes Each P,Q,R,S. suspects four case murder In 1) Section Aptitude
 General IV 1020 2010 prg? output will } temp; { () main cout < 0 and k =
 $qr - s$, then what is r in terms
 of k,q,s?

- a) $2k+s$

q
- b) $2sk$

q
- c) $2(k-s)$

q
- d) $2k+sq$

q
- e) $2(k+s)$

q

answer: e

11-15 is the reasoning Questions:
 Occurs and Causes available in placement papers.com

Six knights - P,Q,R,S,T and U - assemble for a long
 journey in two
 travelling parties. For security, each travelling
 party consists

of at least two knights. The two parties travel by separate routes, northern and southern. After one month, the routes of the northern and southern groups converge for a brief time and at that point the knights can, if they wish, rearrange their travelling parties before continuing, again in two parties along separate northern and southern routes. Throughout the entire trip, the composition of travelling parties must be in accord with the following conditions

P and R are deadly enemies and, although they may meet briefly, can never travel together.
p must travel in the same party with s
Q can't travel by the southern route
U can't change routes

16) If one of the two parties of knights consists of P and U and two other knights and travels by the southern route, the other members of this party besides P and U must be

- a) Q and S
- b) Q and T
- c) R and S
- d) R and T
- e) S and T

answer: e

17) If each of the two parties of knights consists of exactly three members, which of the following is not a possible travelling party and route?

- a) P,S,U by the northern route
- b) P,S,T by the northern route
- c) P,S,T by the southern route
- d) P,S,U by the southern route
- e) Q,R,T by the southern route

ans: b

18) If one of the two parties of knights consists of U and two other knights and travels by the northern route, the other members of this party besides U must be

- a) P and S
- b) P and T
- c) Q and R
- d) Q and T
- e) R and T

answer: c

19) If each of the two parties of knights consists of exactly three members of different parties, and R travels by the northern route, then T must travel by the

- a) southern route with P and S
- b) southern route with Q and R
- c) southern route with R and U
- d) northern route with Q and R
- e) northern route with R and U

answer: a

20) If, when the two parties of knights encounter one another after a month, exactly one knight changes from one travelling party to the other travelling party, that knight must be

- a) P
- b) Q
- c) R
- d) S
- e) T

answer: e

HCL TECH interview qp

Technical interview is held for 30 min to 1 hr 20min depending upon

the stuff. Concentrated areas are

- 1) OS Concepts
 - 2) C Programming skill
 - 3) OOPs concepts
 - 4) Basics of Networking
 - 5) Data structures
- Only basic QP like
- 1) What is fragmentation? How do overcome?
 - 2) What is semaphore?
 - 3) What are the IPC Mechanism available? Illustrate with example
 - 4) What is structure and union in c? write the code and explain
how they are storing in the memory?
 - 5) They will ask to write one c program ?
 - 6) Explain the data struture (code) for the data structures
 - i) Double linklist
 - ii) Minimum spanning tree
 - iii) BFS and DFS
 - iv) AVL tree
 - v) Reverse the linklist
 - 7) Difference between malloc and calloc?
 - 8) write a prg in macro in c?
 - 9) Write a simple MFC program to create a window?
(They aaked me
write a prg to create a window)
 - 10) Tell about the existing scheduling algorithm?
 - 11) what are all E.F.Codd rule?
 - 12) what is bit slice processor?
 - 13) what is a deadlock? explain it?
 - 14) what is virtual memory?
 - 15) what is circuit switching and packet switching
 - 16) What is the significance of friend keyword in C++?
 - 17) Different types of inheritance?
 - 18) do u want to ask anything from us?

HR interview

This ranges from 20 min to 45 min. They expecting ur

- i) Focussing towards the technology
- ii) Adaptability
- iii) Family Background
- iv) Team spirit

- i) Tell abt yourself?

- ii) what are all ur hobbies?
- iii) why did u prefer your area of interest?
- iv) why did u wanna be in HCL?
- v) why did u choose MCA?
- vi) howz interview is going on?
- vii) Some general technical qp from ur area of interest?
- viii) how'll u react if u r assigned in the non area of interest?
(adaptability)
- ix) how're getting information abt the company?
(weightage is given to communciating with the seniors)
- x) In which project do u want to work in HCL?
- xi) do u want to ask anything from us?

There'll be no HR interview for some shortlisted candidates.

70+ and no current arrear is the criteria.

The shortlisted student should have more than 73%.

Aptitude

Setion I (25 ques 30 mins apttitude type)

1. There were four questions based on the data .

5. Five students has appeared for the test on Calculus. The lowest possible

score was 0, and the highest score was 100. aparna ,rahul rohit,shijit, and

shana. Shahana got 8 more marks than Aparna, Shigit got 2 more marks than aparna, rohit got $\frac{3}{2}$ of rohit or 10 more than aaparna. The second highest

score was 89. What were the score of each students.

6. $A+B=C+D$; $A+C=B+D$; $2A>B+D$; $2C<B+D$; Find the arrangements of the letters

like

e.g: $A>B>C>D$ etc and all.

7. $MBC=(BE)^2$; where M,B,C,E represent different numbers What does M represent.

8. There was a question on number series.

9.

20 ? 15

0 18 11

Ans(6)

Five questions were on data sufficiencies all of them I can't recall the ones
can remember I have written them.

A) The first condition is sufficient and the second condition is not necessary.

B) The second condition is sufficient and the first condition is not necessary

C) Both the conditions are necessary but alone is not sufficient

D) Both the conds. Are necessary and any one alone is sufficient condition.

E) Insufficient conditions

10. $X = Y$;

a) $X^2 - Y^2 = 0$ is the sufficient conditions

b) $X - Y = 0$ is the sufficient condition

11. 28 bananas and 35 orange scost Rs 84. After a deduction of 10 % Rs
12 can

buy 4 bananas and 5 oranges. Find the cost of each items.

12 The distance between two pts is 335 kms. A car starts from a point
A towards

B with a speed of 65 km/hr at 8.00 am. Another car started from B
towards A at

9.00 am at a speed of 70 km/hr. When will they meet each other.

a) 11.00 am (ans) b) 11.30 am c) 12.00 pm d) 1.00 pm e) 10.30 am

A, B, C, D, E are travelling in a car. Three of them are drivers. there is
one

couple, B is wife of D and is a Driver. A is the brother of D. Of them
only one

lady can drive. A drove for a while followed by A and then by E.

24. Which among of the following pairs are brothers,

a) AD (ans)

b) CD

c) EA

d) BA

e) ED

25. Which is the other lady present there?
a) B b) A c) D d) C (ans) e) E

Four questions were based on the logical reasoning given below:
There are six inverted cups below which there are one ball each under each cup colored by solid colours. -red, orange, magenta, purple, yellow, green. The arrangements was such that one can tell which ball is under a particular cup. The green ball was under the 5th cup, The purple ball at a number lower than the orange ball. The red ball and magenta ball are kept side by side.

16. Find the arrangement of the balls
ans: -----, -----, -----, -----, green, orange
(I don't remember the other options but the correct pattern consists of green and orange at the last)

17. Which ball is under the 6th cup?

21. In a clock how many times does the hands of a clock are at right angle in a day?
Ans (44 times)

23. A man said to a woman "Your brother's son's sister is my wife"
What is the relation between the man and the lady?

Those who qualified from section I were shortlisted to sit for the second test

on technical questions. The second test consists of two parts Section I consists of Only Operating system and the Section II consists of only C and C++ fundamentals

I got HCL full paper. I am mailing it. The questions are in order. So you no need to prepare answers and mugging that questions. Just Jyou mug that answers which are in order or you write all these answers on the hand compactly while you are going to exam.

Paper Model:

Section I: computer awareness(i.e general things about computer)

Q.15

-ve marks -1/4

Section II: Simple C- language Q. 15 & -ve marks: -1/4

Section III: On pointers & structures

C++,JAVA(only 1 on this) Q.10 each question ->2 marks

-ve marks: -1

Section IV: Analytical Q.20 each question -> 2 marks.

-ve marks: -1/4

VIJAYA from each section Iam giving one are to questions also because for checking whether the same paper or not. And for doubtful answers also I am writing questions but not writing answers for these questions.

SECTION-I

1). Piggy backing is a technique for

a) Flow control b) sequence c) Acknowledgement d) retransmission

ans: c piggy backing

2). The layer in the OST model handles terminal emulation

a) session b) application c) presentation d) transport

ans: b application

3) ans: a odd numbers of errors

4)Q. In signed magnitude notation what is the minimum value that can be represented with 8 bits

a) -128 b) -255 c) -127 d) 0

5) c 20

6) a 120

7) b synchronise the access

8) a system call

9) b the operating system

10) a 177333

11) d used as a network layer protocol in network and windows system

12) b has to be unique in the sub network

13)Q. there is an employer table with key fields as employer no. data in every n'th row are needed for a simple following queries will get required results.

a) select A employe no. from employe A , where exists from employe B where A employe no. >= B employe having (count(*) mod n)=0

b) select employe no. from employe A, employe B where

A employe no.>=B employ no.grouply employe no.having(count(*) mod n=0)

c) both a& b

d)none of the above

14)Q. type duplicates of a row in a table customer with non uniform key field customer no. you can see

a) delete from costomer where customer no. exists

(select distinct customer no. from customer having count)

b) delete customer a where customer no. in

b rowid

c) delete customer a where custeromor no. in

(select customer no. from customer a, customer b)
d) none of the above

15) c Volatile modifier

Section I over with 15 questions

SECTION-II

Section II is not covered completely But it is very very easy
. You can do it very easily.

1) ans: recursion

2) long int size

a) 4 bytes b) 2 bytes c) compiler dependent d) 8 bytes

ans: compiler dependent

note: order of a,b,c,d are doubt but answer is correct.

3) x=2,y=6,z=6

x=y==z;

printf("%d",x) ?

4) if(x>2)?3:4

5)

6)

7) ans: c 6 (question on enum)

8) ----

--

14) c : class A,B and C can have member functions with same name.

15) ans: d none of the above

SECTION-III

1) ans: b It does not work when rp is the last element in the
linked list

2) ans: a always

3) ans: b 13

4) ans: b 16

5) ans: d 55,55

6) ans: c 5,10,10,3

7) ---

8) ans:d 4

9) ans: c 5

10)ans: c semicolon missing

SECTION-IV

following are not in order:

2. $M > D > Y$ ans: (a)

6. 10 in 4 seconds,

? in 6 minutes = $10 \times 6 \times 60 / 4 = 900$ ans: (a)

7. $a=2, b=4, c=5$

$(a+b)/c - c/(a+b) = 11/30$ (ans).

8. $100(100000000+100000000)/10000 = 2 \times 1000000$ (ans).

9. what does the hexanumber E78 in radix 7.

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

10. Q is not equal to zero and $k = (Q \times n - s)/2$ find n ?

(a) $(2 \times k + s)/Q$ (b) $(2 \times s \times k)/Q$ (c) $(2 \times k - s)/Q$

(d) $(2 \times k + s \times Q)/Q$ (e) $(k + s)/Q$

(from GRE book page no:411)

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

NOTE: check following answers.

11. If A occurs which of the following must occur

- I. F & 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)

12. If B occurs which must occur

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

13. If J occurs which must have occurred

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

14. which may occur as a result of cause not mentioned

(1) D (2) A (3) F

(a) 1 only (b) 2 only (c) 1 & 2 (d) 2 & 3 (e) 1,2,3 ans: (c)

15. E occurs which one cannot occur

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

11 to 15:- ----- e , a , b , c , b -----

Below are in order:

16. to 20. answers:

e
a
c
a

HCL SYSTEM SOFTWARE PAPER: 60 qs; 90 min. (4 sections)

NOTE : Please check answers once again.

only this much i got , which is available here in iit-kgp

section 1.

1. which of the following involves context switch,

- a) system call
- b) privileged instruction
- c) floating point exception
- d) all the above
- e) none of the above

ans: a

2. In OSI, terminal emulation is done in

- a) session
- b) application
- c) presentation
- d) transport

ans: b

3. 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 no of address lines required,

- a) 11
- b) 16
- c) 22
- d) 24

ans: 16

5. Semaphore is used for

- a) synchronization
- b) dead-lock avoidance
- c) box
- d) none

ans : a

6. class c: public A, public B

- a) 2 member in class A,B should not have same name
- b) 2 member in class A,C " " "

- c) both
- d) none

ans : a

7. question related to java

8. OLE is used in

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

9.No given in HEX ---- write it in OCTAL

10.macros and function are related in what aspect?

- a)recursion b)varying no of arguments
- c)hypochecking d)type declaration

11.preproconia.. does not do one of the following

- a)macro b)conditional complication
- c)in type checking d)including load file

ans: c

SECTION B

1.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.main

```
{  
int x,j,k;  
j=k=6;x=2; ans x=1  
x=j*k;  
printf("%d", x);
```

3. fn f(x)

```
{ if(x<=0)
return; ans fn(5) ....?
else f(x-1)+x;
}
```

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

```
6. int x=5;
y= x&y
( MULTIPLE CHOICE QS)
ans : c
```

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

ans : 13

```
8. 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
- d)

ans : a

9. if x is even, then

- (x%2)=0
- x &1 !=1
- x! (some stuff is there)

- a)only two are correct
- b) three are correct
- c), d)

ans : all are correct

10. which of the function operator cannot be over loaded

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

ans: b and d

SECTION.C (PRG SKILLS)

(1) 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

}

IN WHAT CASE THE PREV WAS

(A) ALL CASES

(B) IT DOES NOT WORK FOR LAST ELEMENT
(C) IT DOES NOT WORK FOR-----
(2) SIMILAR TYPE QUESTION
ANS: ALL DON'T WORK FOR NON NULL VALUE

(3) VOID FUNCTION(INT KK)

```
{  
KK+=20;  
}  
VOID FUNCTION (INT K)  
INT MM,N=&M  
KN = K  
KN+ -=10;  
}  
SECTION D
```

(1) $a=2, b=3, c=6$ $c/(a+b)-(a+b)/c=?$
(2) no.rep in hexadecimal, write it in radix 7
(3) A B C D E
* 4

----- find E ANS: 13
E D C B A

(4) GRE-MODEL TEST-1, SECTION-6(19-22)
(5) M HAS DOUBLE AMOUNT AS D, Y HAS RS. 3 MORE THAN HALF OF AMOUNT OF D

THE ORDERING A,B,C M C D C Y

ANS:DATA INSUFFICIENT D C M C Y

(6)IN STASTIC MEN CAUSE MORE ACCIDENTS THEN ONE CONCLUSION

(A) MEN DRIVE MORE THAN ONCE
(B) STASTICS GIVE WRONG INFORMATION
(C) WOMEN ARE CAUTION THAN ME ANS; C(VERIFY)
(D)-----ETC

(7) P,Q,R,S,T,U -SECURING GRANT;TWO TOURIST PARTIES AND THEN TWO SECURITY
GAURDS SHOULD GO WITH EACH PARTY

P AND R-ARE ENEMIES, Q DOES NOT GO SOUTH
P&S-ARE WILLING TO BE TOGETHER

THE TWO PARTIES MAY GO SOUTH&NORTH RESPECTIVELY
AT ONE POINT EACH MAY PASS EACH OTHER THEN GAURDS CAN EXCHANGE
6 Q BASED ON THIS

(8) $pq-r/s =2$ what is q inference a,n&d

(a) a can do n units of work in str, a&b can do n units of work in 2 hrs
in how many hrs n units of work ans: 3 hr 30 min $p = (2s+r)/q$

```
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

[c++, c, dbms interview]
[fundamentals]
this is new paper

application - software

part-1:
28-questions
(5)ingless ans: RDMS
(1)bit program-ans d
(2)c ans
(3)+ 0 ans
(4)00p--ans linking
(5)-----
(6)-----
(9)25--45 even no. ans--10
(10) >10 <100 ---ans=n+9