## HCL Sample Paper <br> Jobs-Junction.com

| Company | $:$ | HCL |
| :--- | :--- | :--- |
| Date | $\vdots$ |  |
| College | $:$ |  |

1. $a=2, b=3, c=6$

Find the value of $c /(a+b)-(a+b) / c$
Ans. 11/30
2. What does the hexa number 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 $\mathrm{k}=(\mathrm{Q} \times \mathrm{n}-\mathrm{s}) / 2$.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)
11) 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) $10.5 \% ~(D) 12 \% ~(E) 15 \% ~$
12) 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)2/3 (B)3/4 (C) 1 (D)2 (E)3

Answer :E)3
13) In a murder case there are four suspects $P, Q, R, S$. Each of them makes a statement. They are p : "I had gone to the theatre with $S$ at the time of the murder". q : "I was playing cards with P at the time of the murder".r: "Q didn't commit the murder".s: "R is not the murderer".
Assuming the only one of the above statement is false and that
one of them is the murderer, who is the murderer?
a) $P$
b) $Q$
c) $R$
d) Cann't be concluded
e) S

Ans: E
14) Mohan earned twice as much as Deep. Yogesh earned rs.3/- more than half as much as deep. If the amounts earned by Mohan,Deep,Yogesh are M,D,Y respectively, Which of the following is the correct ordering of these amounts?
a) M
$<D<Y$
b) M
$<Y<D$
c) $D$
$<M<Y$
d) It cann't be determined from the information given
e) D
$<\mathrm{Y}<\mathrm{M}$
15) Statistics indicate that men drivers are involved in more accidents than women drivers. Hence it may be concluded that
a) sufficiently information is not there to conclude anything
b) Men are actually better drivers but drive more frequently
c) Women Certainly drive more cautiously than Men
d) Men chauvinists are wrong about women's abilties.
e) Statistics sometimes present a wrong picture of things
16)Given that $A, B, C, D, E$ each represent one of the digits between 1 and 9 and that the following multiplication holds:
ABCDE
X 4
EDCBA
what digit does E represent?
a) 4
b) 6
c) 8
d) 7

Ans: c
17) HCL prototyping machine can make 10 copies every 4 seconds. At this rate, How many copies can the machine make in 6 min.?
a) 900
b) 600
c) 360
d) 240
e) 150

Ans: a
18) if $a=2, b=4, c=5$ then
a+b c
----------
c a+b
a) 1
b) $11 / 30$
c) 0
d) $-11 / 30$
e) -1

Ans: b
19) $10^{\wedge} 2\left(10^{\wedge} 8+10^{\wedge} 8\right)=$
$10^{\wedge} 4$
a) $2(10)^{\wedge} 4$
b) $2(10)^{\wedge} 6$
c) $10^{\wedge} 8$
d) $2(10)^{\wedge} 8$
e) $10^{\wedge} 10$

Ans: b
20) Worker $W$ produces $n$ units in 5 hours. Workers $V$ and $W$, workers independently but at the same time, produce n units in 2 hours.how long would it take V alone to produce n units?
a) 1 hr 26 min
b) 1 hr 53 min
c) 2 hr 30 min
d) 3 hr 30 min
e) 3 hr 20 min

Ans: d

Six knights - $P, Q, R, S, T$ and $U$ - assemble for a long journey in Two ravelling 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 traveling 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 cann't travel by the southern route
U cann't change routes
21) 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 $T$

Ans: e
22) 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
23) If one of the two parties of knights consists of $U$ and two other knights and travels by the northern route, the other memnbers 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 $T$

Ans: c
24) 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 $U$

Ans: a
25) 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

Ans: e
26)A gambler bets on the team of seven players ABCDEFG whose winning a-4 to 1 against $b-4$ to 1 against $c-4$ to 1 against $d-4$ to 1 against e-5 to 1 against f-6 to 1 against g. how should he bet on g to set 20\% profit.
27) If a person buy radio worth Rs 2468 and pay $7 \%$ sales .how much price of radio should reduce to pay only Rs 2468.
28)what is vasu salary if salary of vasu is more than rajan salary working in same company i) vasu salary is 100 more than rajan salary.
ii)rajan found 2000 allowns which is 50 less than vasu.
(iii)basic salry of rajan is 1000 .
(i)only i is required
(ii) \& ii is required
(iii) \& iii is required
(iv)i\&ii\&iii is required
(v)none of these
29) if in 100 miles race 8 person is running winner take 9.8 sec and fifth man takes 10.4 sec the time of 8 man is in AP if in $4 * 100$ meters realy of onside is $1,4,5,8$ position then win by.
a). $3 \sec \mathrm{~b}) .1 \mathrm{sec} \mathrm{c}) .7 \sec \mathrm{~d}) .5 \sec \mathrm{e}$ )none
30)how many sons $X$ have
qwe based on relation
i)
ii)
iii)
ans(data i,ii,iii is insufficient)

More Questions on aptitude.
Instructions ALL NUMBER USED ARE REAL NUMBERS FOLLOWING EACH QUESTIONS ARE FIVE POSSIBLE ANSWERS LABELED

## A).B).C).D)\&E).TICK THE BEST CHOICE.

1. How many of the integers between 25 and 45 are even?
(A)21 (B)20 (C)11 (D)10 (E)9

Answer:d)10
2. If taxi fares were Rs 1.00 for the first $1 / 5$ mile and Rs 0.20 for each $1 / 5$ 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)Rs 3.80
3. 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) (99.10)
4. 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)50
5. 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) 6.26
6. 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)7.5\%
7. 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
8. 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) 50\%
9. A millionaire bought a job lot of hats $1 / 4$ of which were brown. The millionaire sold $2 / 3$ of the hats including $4 / 5$ of the brown hats. What fraction of the unsold hats were brown.
(A)1/60 (B)1/15 (C)3/20 (D)3/5 (E)3/4

Answer :c)3/20
10. 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)8
11) 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)50
12) 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)40\%
13) 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)2/3 (B)3/4 (C)1 (D)2 (E)3

Answer :E)3
14.) 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) 5

Full paper 2003
Section A

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 25 MHz 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
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 compliclation
(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) retransmition

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. >=B
employee having $\left(\operatorname{count}\left({ }^{*}\right) \bmod n\right)=0$
(b) select employee number from employe $A$, employe $B$ where $A$ employe number>=B employ number
group by employee number having(count(*) $\bmod n=0$ )
(c) both (a) \& (b)
(d) none of the above
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;
$j=k=6 ; x=2$;
$x=j *$;
printf("\%d", x);
3. Find the output for the following C program
fn $f(x)$
$\{\mathrm{if}(\mathrm{x}<=0)$
return;
else $f(x-1)+x$;
\}
4. Find the output for the following C program
$\mathrm{i}=20, \mathrm{k}=0$;
for $\left(j=1 ; ;<i ; j=1+4^{*}(i j j)\right)$
$\{k+=j<10 ? 4: 3$;
\}
printf("\%d", k);
Ans. $k=4$
5. Find the output for the following C program
int $\mathrm{i}=10$
main()
\{int i $=20, \mathrm{n}$;
for( $\mathrm{n}=0 ; \mathrm{n}<=\mathrm{i} ;$ )
Sint $\mathrm{i}=10$;
i++;
\}
print("\%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 $c /(a+b)-(a+b) / c$ 11/30
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 $\mathrm{k}=(\mathrm{Q} \times \mathrm{n}-\mathrm{s}) / 2$.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
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$F$ occurs only if $B$ occurs
D occurs if B or C occurs
$E$ occurs only if $C$ occurs
Joccurs 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)

## General Tips To Overcome An Interview

Campus So what if you are not a mountaineer. Or a keen hiker. You still cannot treat your interview like a careless morning trot along a jogger's path. Your jaw-jaw at the interview table is nothing less than a cautious climb up a mountain trail--which begins around your early childhood and meanders through the years at the academia before reaching a new summit in your career.And as you retrace your steps down memory lane make sure that you post flags at important landmarks of your life and career, so that you can pop them before the interview panel scoops them out of you. You don't want to be at the receiving end, do you?

Face the panel, but don't fall of the chair in a headlong rush-and-skid attempt to tell your story. Take one step at a time. If you place your foot on slippery ground, you could be ejecting out on a free fall.

So prepare, fortify your thoughts, re-jig your memory, and script and design your story (without frills and falsity). Without the right preparation and storyboard, you could be a loser at the interview. Here are a few preparation tips that books on interviews sometimes overlook.

Before the interview

1. Chronological Outline of Career and Education Divide your life into "segments" defining your university, first job, second job. For each stage, jot down :

The reason for opting certain course or profession; Your job responsibilities in your previous/current job; Reason of leaving your earlier/current job. You should be clear in your mind where you want to be in the short and long term and ask yourself the reason why you would be appropriate for the job you are being interviewed for and how it will give shape to your future course.

## 2. Strengths and Weaknesses

You should keep a regular check on your strengths and weaknesses. Write down three (3) technical and three (3) non-technical personal strengths. Most importantly, show examples of your skills. This proves more effective than simply talking about them. So if you're asked about a general skill, provide a specific example to help you fulfil the interviewer's expectations. It isn't enough to say you've got "excellent leadership skills". Instead, try saying:
"I think I have excellent leaderships skills which I have acquired through a combination of effective communication, delegation and personal interaction. This has helped my team achieve its goals."

As compared to strengths, the area of weaknesses is difficult to handle. Put across your weakness in such a way that it at leaset seems to be a positive virtue to the interviewer. Describe a weakness or area for development that you have worked on and have now overcome.
3. Questions you should be prepared for

Tell us about yourself.
What do you know about our company?
Why do you want to join our company?
What are your strengths and weaknesses?
Where do you see yourself in the next five years?
How have you improved the nature of your job in the past years of your working? Why should we hire you?
What contributions to profits have you made in your present or former company? Why are you looking for a change?

Answers to some difficult questions :
Tell me about yourself?
Start from your education and give a brief coverage of previous experiences. Emphasise more on your recent experience explaining your job profile.

What do you think of your boss?

Put across a positive image, but don't exaggerate.
Why should we hire you? Or why are you interested in this job?
Sum up your work experiences with your abilities and emphasise your strongest qualities and achievements. Let your interviewer know that you will prove to be an asset to the company.

How much money do you want?
Indicate your present salary and emphasise that the opportunity is the most important consideration.

Do you prefer to work in a group?
Be honest and give examples how you've worked by yourself and also with others. Prove your flexibility.

## 4. Questions to As

At the end of the interview, most interviewers generally ask if you have any questions. Therefore, you should be prepared beforehand with 2-3 technical and 2-3 non-technical questions and commit them to your memory before the interview.

Do not ask queries related to your salary, vacation, bonuses, or other benefits. This information should be discussed at the time of getting your joining letter. Here we are giving few sample questions that you can ask at the time of your interview.

## Sample Questions

Could you tell me the growth plans and goals for the company?
What skills are important to be successful in this position?
Why did you join this company? (optional)
What's the criteria your company uses for performance appraisal?
With whom will I be interacting most frequently and what are their responsibilities and the nature of our interaction?
What is the time frame for making a decision at this position?
What made the previous persons in this position successful/unsuccessful?

## 5. Do your homework

Before going for an interview, find out as much information on the company (go to JobsAhead Company Q and A) as possible. The best sources are the public library, the Internet (you can check out the company's site), and can even call the company and get the required information. The information gives you a one-up in the interview besides proving your content company or position.

Clearing the interview isn't necessarily a solitary attempt. Seek assistance from individuals who are in the profession and whose counsel you value most. Be confident in your approach and attitude; let the panel feel it through your demeanour, body language and dressing.

Getting prepared for your interview is the best way to dig deep and know yourself. You will be surprised that it would breed a new familiarity become more familiar with your own qualifications that will be make you present yourself better. All the best and get ready to give a treat.

## 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 declaraion 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 declarin pointer to a function

Answer : c) The first de...
2. What are the values printed by the following program?

```
#define dprint(expr) print((#expr "=%dln",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) $\mathrm{x} / \mathrm{y}=2$
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;
$\mathrm{p}=($ 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 funciton 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 funtion tries to access

```
the
elements
in
the array
```

Answer: a) The fu...
7. The type of the controlling expression of a switch statement cannot
be of
the
type
a) int b) char c) short d)float e) none

Answer : d)float
8. What is the value of the expression $\left(3^{\wedge} 6\right)+\left(a^{\wedge} a\right)$ ?
a) 3 b) 5 c) 6 d) a+18e) None

Answer : 5
9. What is the value assigned to the variable $X$ if $b$ is 7 ?
$X=b>8$ ? $b \ll 3$ : $b>4$ ? $b \gg 1: b ;$
a) 7 b) 28 c) 3 d) 14 e) None
ans: 3;
10. Which is the output produced by the following program main()
\{
int $\mathrm{n}=2$;
printf("\%d \%dln", ++n, n*n);
\}
a) 3,6 b) 3,4 c) 2,4 d) cannot determine

Answer : b) 3,4
11. What is th output of the following program? int $x=0 \times 65$; main()
\{
char x;
printf("\%dln",x)
\}
a) compilation error b) 'A' c) 65 d) unidentified
12. What is the output of the following program main()
\{
int $\mathrm{a}=10$;
int $b=6$;
if(a=3)
b++;
printf("\%d \%dln",a,b++);
\}
a) 10,6 b) 10,7 c) 3,6 d) 3,7 e) none

Answer : d) 3,7
13. What can be said of the following program? main()
\{
enum Months $\{J A N=1$, FEB,MAR,APR $\} ;$
Months $\mathrm{X}=\mathrm{JAN}$;
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) Prints : Jan..
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: d) NULL
15. What is the output of the following program?

```
main()
{
int l=6;
switch(I)
{ default : I+=2;
case 4: l=4;
case 5: l++;
break;
}
print("%d",I);
}
a)8 b)6 c)5 d)4 e)none
```

Answer : c) 5
16. What is the output of the following program?
main()
\{
int $x=20$;
int $\mathrm{y}=10$;
swap(x,y);
printf("\%d \%d",y,x+2);
\}
swap(int x,int y)
\{
int temp;
temp =x;
$\mathrm{x}=\mathrm{y}$;
$y=t e m p ;$
\}
a) 10,20 b) 20,12 c) 22,10 d) 10,22 e)none

Answer:d)10,22
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) compilation error
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;
flaot $b$;
char c ;
\};
a) 2 b) 4 c) 1 d) 7
20) What is the output of the following program? (. has been used to indicate
a
space)
main()
\{

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

a)Hello,.World...
b)....Hello,.Wor
c) Hello,.Wor....
d)None of the above
(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 emplyees 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 $1 / 2$ 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)10
15. If taxi fares were Rs 1.00 for the first $1 / 5$ mile and Rs
0.20 for
each
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)Rs 3.80
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) (99.10)
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)50
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) 6.26
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)7.5\%
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) 50\%
22) A millionaire bought a job lot of hats $1 / 4$ of which were brown. The
millionaire sold $2 / 3$ of the hats including $4 / 5$ of the brown
hats. What
fraction
of the unsold hats were brown.
(A)1/60 (B)1/15 (C)3/20 (D)3/5 (E)3/4

Answer :c)3/20
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)8
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)50
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)40\%
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)2/3 (B)3/4 (C)1 (D)2 (E)3

Answer :E)3
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) 5

## 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 funtion 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 fution 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...
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 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
03) What is printed when this program is executed main()
\{
printf ("\%dln",f(7));
\}
$f(X)$
\{
if $(x$
$<=4$ )
return x ;
return $f(--x)$;
\}
a) 4
b) 5
c) 6
d) 7
ans: a
04) On a machine where pointers are 4 bytes long, what happens when the following code is executed.
main()
\{
int $x=0,{ }^{*} \mathrm{p}=0$;
x++; p++;
printf ("\%d and \%dln",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);
}
ans:b
```

6) Consider the following program
```
main()
```

\{
int i=20, ${ }^{*} \mathrm{j}=8 \mathrm{i}$;
f1(j);
*j+=10;
f2(j);
printf("\%d and \%d",i,, $\left.{ }^{\text {, }} \mathrm{j}\right)$;
\}
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("%dln",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("\%dln",i)
\}
b.c
static int f1()
\{
i+=10;
\}
which of the following is true?
a) a.c will fail in compilation phase because f 1() is not declared
b) b.c will fail in compilation because the variable $i$ is not

```
declared
c) will print }3
d) will print 40
e) a & b
ans: e) a & b
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 complied and executed are:
a) 20 and 55
b) 20 and 45
c) 45 and 55
d) 55 and 55
e) 35 and 35
ans: d
10) 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
Section IV - General Aptitude Section

1) In a murder case there are four suspects $P, Q, R, S$. Each of them
makes a statement. They are
p: "I had gone to the theatre with $S$ at the time of the murder".
q : "I was playing cards with P at the time of the murder".
$r:$ " $Q$ didn't commit the murder".
s : " R is not the murderer".
Assuming the only one of the above statement is false and that one of
them is the murderer, who is the murderer?
a) $P$
b) $Q$
c) $R$
d) Cann't be concluded
e) $S$
and: E
2) Mohan earned twice as much as Deep. Yogesh earned rs.3/- more
than
half as much as deep. If the amounts earned by
Mohan,Deep,Yogesh
are M, $\mathrm{D}, \mathrm{Y}$ respectively, Which of the following is the correct
ordering
of these amounts?
a) M
$<D<Y$
b) $M$
$<Y<D$
c) D
$<M<Y$
d) It cann't be determined from the information given
e) $D$
$<Y<M$
3) Statistics indicate that men drivers are involved in more accidents than women drivers. Hence it may be concluded that
a) sufficiently information is not there to conclude anything
b) Men are actually better drivers but drive more frequently
c) Women Certainly drive more cautiously than Men
d) Men chauvinists are wrong about women's abilties.
e) Statistics sometimes present a wrong picture of things
4) What does the hex number E78 correspond to in radix 7 ?
a) 12455
b) 14153
c) 14256
d) 13541
e) 13112
ans:d
5)Given that $A, B, C, D, E$ each represent one of the digits between 1 and 9 and that the following multiplication holds:
ABCDE
X 4
EDCBA
what digit does E represent?
a) 4
b) 6
c) 8
d) 7

Ans: c
6) HCL prototyping machine can make 10 copies every 4 seconds. At this rate, How many copies can the machine make in 6 min .?
a) 900
b) 600
c) 360
d) 240
e) 150
ans: a
7) if $a=2, b=4, c=5$ then
$a+b c$
--------- =
c a+b
a) 1
b) $11 / 30$
c) 0
d) $-11 / 30$
e) -1
ans: b
8) $10^{\wedge} 2\left(10^{\wedge} 8+10^{\wedge} 8\right)=$
$10^{\wedge} 4$
a) $2(10)^{\wedge} 4$
b) $2(10)^{\wedge} 6$
c) $10^{\wedge} 8$
d) $2(10)^{\wedge} 8$
e) $10^{\wedge} 10$
ans: $b$
9) Worker W produces n units in 5 hours. Workers V and W , workers independently but at the same time, produce $n$ units in 2 hours.
how long would it take V alone to produce n units?
a) 1 hr 26 min
b) 1 hr 53 min
c) 2 hr 30 min
d) 3 hr 30 min
e) 3 hr 20 min
ans: d
10) if $q<>0$ and $k=q r-s$, then what is $r$ in terms of $k, q, s$ ?
a) $2 k+s$
q
b) 2 sk
----
q
c) $2(\mathrm{k}-\mathrm{s})$
q
d) $2 k+s q$
q
e) $2(k+s)$
q
ans: 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 cann't travel by the southern route
U cann'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 $T$
ans: 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 memnbers 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 $T$
ans: 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 $U$
ans: 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) $T$
ans: e


```
==
>There were three tests- technical }40\mathrm{ quest.(from
>database, unix and C)
>, apti - }25\mathrm{ and 1 programming part (It was to
>implement circular queue)
>
>
>One q on as an example (i donnt remember exactly the
>same q but it was looking like this)
>-
>1>
>acbc
>Xgc
>-------
>aoif
>gsdj
>--------
>ghhk
>------
>4 q based on the above.-value of c,b,g etc.
>
> >GRE 13th edition-analytical ability page-389
>Qs(1-4){ms Braun,mr white,mr black,ms green,mr
>parker,mr allen)
>
> >page-394 Qs(37-39) {baseball team-miller craig hook
>mizel}
>
> >six to seven question ask from R.S.AGGRWAL FOR THIS
>YOU MUST READ THE STATEMENT AND CONCLUSION,DERIVING
```


## >CONCLUSION FROM PASSAGE,STATEMENT AND ASSUMPTIOM,

 >STATEMENT AND ARGUMENT FROM R,S.AGGRWAL VERBAL >REASONING.>
$>1) \mathrm{A}$ gambler bets on the team of seven players ABCDEFG
$>$ whose winning a-4 to 1 against $b-4$ to 1 against $\mathrm{c}-4$ to
$>1$ against d-4 to 1 against e-5 to 1 against f-6 to 1
>against g . how should he bet on g to set $20 \%$ profit.
$>$
>2)If a person buy radio worth Rs 2468 and pay $7 \%$ sales
>.how much price of radio should reduce to pay only Rs
$>2468$.
$>$
$>3$ )what is vasu salary if salary of vasu is more than
>rajan salary working in same company
>i)vasu salary is 100 more than rajan salary.
>ii)rajan found 2000 allowns which is 50 less than
$>$ vasu.
>iii)basic salry of rajan is 1000 .
$>$
>i)only i is required ii)i \& ii is required iii)i\& iii
>is required iv)i\&ii\&iii is required
$>$ v)none of these
$>$
>4)if in 100 miles race 8 person is running winner take
$>9.8 \mathrm{sec}$ and fifth man takes 10.4 sec the time of 8 man
>is in AP if in $4 * 100$ meters realy of onside is $1,4,5,8$
$>p o s i t i o n ~ t h e n ~ w i n ~ b y . ~$
$>\mathrm{a}) .3 \mathrm{sec} \mathrm{b}) .1 \mathrm{sec} \mathrm{c}) .7 \sec \mathrm{~d}) .5 \mathrm{sec} \mathrm{e})$ none
$>$
$>5)$ how many sons $X$ have
$>q$ we based on relation
$>$ i)
>ii)
>iii)
>ans(data i,ii,iiii is insufficient)
$>$
>====================================
$>1$ ). Piggy backing is a technique for
>a) Flow control b) sequence c) Acknowledgement d) >retransmition
>ans: c piggy backing
$>$
>2). The layer in the OST model handles terminal >emulation
>a) session b) application c) presentation d)
>transport

```
>
>3. Speed of the processor is given 35mhz,find the
>time taken for 3 clock cycle.Ans=>20 bits.
>
>4. To address a memory of 1 mb, How many bits are
>required.Ans=> 20 bits.
>
>5.Semaphores used for .Ans=>Synchronisation.
>
>6. Termination emulation is done in which layer in
>osi model. Ans =>Application layer.
>
>7. Which of the following involve context switch.
>a. System call, b. Privileged instruction, c.
>kernal mode,
>d.None of these, Ans=>d.
>
>8.Given an employee table,Find the employee with the
>second largest salary. ans: b application
>9.OLE ans.winNT
>10)IP address
>
>11)SI*(*(f[])())()
>
>12)In ANSI C which is such thing is not in Java.
>
>13)typedef struct node
>{
>int
>NODEPTR * NODE
>}
>
>14)Q. In signed magnitude notation what is the
>minimum value that can be
>represented with }8\mathrm{ bits
>a) -128 b) -255 c) -127 d) 0
>
>15)Q. there is an employer table with key feilds 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
>
>16. Piggybacking is done for, Ans=>Acknowledgement.
>
>17.WHICH IS NOT BASIC data type
>ans.Char*
>
>18.which of the following statement is valid for
>string copy
>char *srt,*ptr;
>a)while(*str)
>{
>*str=*ptr;
>++str=++ptr;
>}
>
>b)
>while(*str)
>{*++str=*++ptr};
>c) d)
>
>19) Two variable cannt have the same name in
>a)function b) block c) file d)---
>C Section
>******************
>20. #define inc(x) x++
>main()
>{
>int t=1;
>print("%d",inc(t++));
>}
>
>21. one or two que for the complicated declaration.
>
>22. Const char *a="Abcd";
>char const *a="lmno";
>base do this,Two que were there.
>
>23.char *p;
>char q[20];
>
>24.int i,*p=&i;
>p=malloc(10);
>free(p);
>printf("%d",p);
```

```
>ans: garbage
>
>25.int i=20, 'j=&i
>f(i)
>printf("%d",i);
>
>26.#define val 1+2
>printf("%d%d",val/val,va|^3)
>ans:39
>27.#define "this" "#"
>#define (x,y) x##y
>printf("this","this is")
>ans: compilation error (tested)
>
>28.(2^2)+(a^a)
>
>29. int a ,b=7
>a=b<4?b<<1:b>4?7>>1:a
>ans.3
>
>30.one que on c++ class member function
>ans.d
>
>31.work of memory management unit.
>
>32.who relate virtual memory to physical memory
>ans.os
>
>33.memory is allocated to variable
>a)when declared b)when define c)...
>
>34.question on double linked list
>35. define success 1
>define failure -1
>if(condition)
>printt(success);
>else
>printf(failure);
>ans success
>
>36. main()
>{
>int var=25,varp;
>varp=&var;
>varp=10;
>fun(varp);
>printf(%d%d",var,varp);
```

```
>ans a)45,45 b)55,55 c) 20,55;
>
>37. u r given two statements
>a=(10.15);
>b=10,15;
>if they are executed what is the output
>printf("%d%d",a,b);
>a)10,15 b)15,10 c)10,10 d)15,15
>ans a
>
>38. define null 0
>ans=0;
>
>39. #define inc(x) x++
>main()
>{
>int t=1;
>printf("%d",inc(t++));
>}
>ans.error
>
>40.argument in funtion can be passed
>1)by value 2)by refference 3)....
>
>41.
>main
> int x=1,y=2,z=3;
>x=y==z;
>printf(x);
>}
>
>42.in switch float is not used
>
>43.one question on register variable.
>
>
>
>
>
====================================================================
=============================================================
```

1.HCL has two divisions a) technology division b) application
division.if a
student opts for a) then he has to give 2 papers 1)
aptitude(25
questions) 2)
technical(30 approx).if he opts for application field then he
has
to give only
apti paper which is same as that of techni paper.
2.after the written results are declared the technology students
are given
another test of 15 minutes in which they have to write a C program(reversing
string, reversing singly/doubly link list(FAVOURITE))and then interview is
taken.
3.if you have good command in comp s then opt for technology paper.
4.in apti(for tech people) if you do 8-10 out of 25 then it is on safe side.

## APTITUDE PAPER:...:

question not in order.i dont remember all question.if you have time practice
BARRON's analyttical ability.most q's from here.

1) BARRON section ANALYTICAL ABILITY page 396, practice excercises
question
1-4(edition of my book 1998 check out).quest like this miss braun, mr white, miss green, mr parker etc.
2) BARRON section ANALYTICAL ABILITY page 401, practice excercises
question
37-39(edition of my book 1998 check out). base ball team,pitchers-craig,hook.
3) the closing of the resturant by Mr.X on SEPT 1 was considered
an
unfinancial one, as the weather remained unusually clear and sunny
for another
one month.
An author who criticizes the act of Mr . X would be proved wrong if the
following was true??
ANS choice a) the weather did not usually remained fine after SEPT
1. 
4) SUSAN works in a company who has restricted its employees from
smoking
cigerrates in the canteen.As susan is the employee of the company
she does not smoke cigerrate in the canteen.

Which of the following unused phrases strengthens the rules of the
company??
ANS the employees normally do not do the work for which the company has
forbidden them to do.
5) $A$ q's on family relation was given like How many sons $X$ has
$I P$ is the
daughter of $X$
Il some
condt.
Ill some
condt.
ANS al I ,II, III together are not sufficient.
6)a q's in which a name KAPIL is given he visits manoj's
home.some
condts
given.
ANS b)
7)A,B,C,D are the 4 plays which are organised starting from tuesday.find the
day on which C was played.in this 2 condt. will be given as
$\qquad$
II.

ANS both I and II
8)a quest on crypto graphy like

ABCD
EFGH

values.
practice these types of quest.
9)a question on race was given.hell lot of condts.finally they make a team for
4*100 metres medaly.
ANS E none of the above
10) a q's on profit and loss.(just brush up your concepts.)
\#\#\#\#\#\#\#\#THESE Q'S WORTH OF 14 or 15 marks.sufficient.some of
my
friends are
also compiling the papers $i$ will send them
also.\#\#\#\#\#\#\#\#\#\#\#\#\#\#\#
@@@@@@@@@MUG!!!! UP THE QUESTIONS VERY WELL MOST OF the ANS ARE
CORRECT.BUT
YOU CAN VERIFY THEM IF TIME ALLOWS@@@@@@@@@@@
TECHNICAL:.....:(MANY Q's OF LAST YEAR WERE REPEATED IN TECHNICAL
PART)
1). Piggy backing is a technique for
a) Flow control b) sequence c) Acknowledgement d) retransmition
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 ANS a)
5) c 20(no of address lines in 1MB of memory)
6) a 120 (25 hz processor,what is the time taken by the instr which needs 3 clock cycles)
7) $b$ synchronise the access(semaphores used for)
8) a system call(context switching is used in)
9) $b$ the operating system(mapping of virtual to physical address)
10) a 177333(conversion of HEX "0xFEDB"in octal)
11) d used as a network layer protocall in network and windows(OLE) system
12) $b$ has to be unique in the sub network(internet address)
13)Q. there is an employer table with key feilds 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 $\left(\operatorname{count}\left({ }^{*}\right) \bmod n\right)=0$ b) select employe no. from employe $A$, employe $B$ where

A employe no. >= B employ no. grouply employe no. having (count(*)
$\bmod n=0)$
c) both $a \& b$
d)none of the above
14)Q. type duplicates of a row in a table customer with non uniform key
feild
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
(select customer b where custermer no. equal to b custemor no.
)
and a
rowid >
b rowid
c) delete customer a where custermor no. in
( select customer no. from customer a, customer b )
d) none of the above
15) which feature in ANSI C but not in JAVA.??ANS variable arguments.
16)preprocessor does not do one of the following??ANS type checking.
17) long int size
a) 4 bytes b) 2 bytes c) compiler dependent d) 8 bytes
ans: compiler dependent
18) $x=2, y=6, z=6$
$x=y==z$;
printf(\%d",x) ?ANS 1
19) class c : public A,publicB
a) 2 members in class $a, b$ can have member functions with same name.
b) 2 members in class a,c can have member functions with same name.
c) both
d)none(ANS)
\#\#\#\#\#\#\#WHAT WILL BE THE I/O OF THE FOLLOWING \#\#\#\#\#\#\#\#\#\#\#
20) main()
\{

```
char *p;
p=malloc(10);
free(p);
print("%d",p);
}
ANS compilation error
```

```
21)a=(10,15)
b=10,15
what are the values of a & b in ANSI C
ANS 15,10
```

22)main()\{
int $x=10, y=15, z=16$;
$x=y==z ;$
printf("\%d",x);
ANS 0
23) $f(n) f(x)$
\{
if(x
$<=0$ )
return;
else $f(x-1)+x$;
\}
find the value of $\mathrm{fn}(5)$ ? ANS 15.
24)struct \{
int det;
struct prevoius;
struct new;
\}
delete(struct node)
\{
node-prev-next=node-next;
node-next-prev=node-prev;
if(node==head)node
\}
one element will be given.

ANS::it does not work when rp is the last element in the link list.
25)A code will be given which searches a particular char in the string.
ANS:: it always works.

```
26)main()
{
int var =25,varp;
varp=&var;
varp p=10;
fnc(varp);
printf("%d%d",var,varp);
}
ANS::55,55 (check this out)
27)#define VALUE 1+2
main()
{
printf("%d and %dln",VALUE/VALUE,VALUE*3);
}
ANS:: 5,7
```

28)What is the value assigned to the variable $a$ if $b$ is 7 $a=b>8 ? b \ll 2: b>4 ? b \gg 1: b$;
ANS::3
29)the value of the following $\operatorname{expr}\left(2^{\wedge} 3\right)+\left(a^{\wedge} a\right)$ is
a) 1 b) 2 c) 3 d) insufficient data
30) which of the following is not basic data type ANS char*
31)the declaration of the variable does not result in one of the
following
ANS allocatrion of the storage space for the varable.
32)in $C$ parameters are passed by ANS:: value only.
33)2 variables cannot have the same name if they are ANS:: in the same block.
34)a static funct. say s(),in as file f.c can be invoked from ANS all functs. in f.c after the definitions of $s$.
35)macros and functions do not differ in the following aspects ANS::variable no of arguments.
36)one q's in which he will give some different forms of STRCPY
function you
will have to find out which form is correct.
@@@@@@@@@@Wipro 2000 @@@@@@@@@@@@@@@@@@@@ total 44 general + 12 tech there were 75 questions
NO NEGATIVE MARKINGS
Two Parts:1)general-55 questions 2)dept wise technical -20 qns
Part-1:20 chemistry+ 5 physics+ 15 maths +15 logical Physics:

1) a free electron is placed in a electromagnetic
field, it will move in the direction of
a)Electric Field b) Magnetic Field c)Wave Propogation
d)
2)Elements with same atomic \& mass no are called
a) isotope b)isotone c) isobar d) isomer
3)|(2x-3)/(x?x+1)?= (where '|' is for integration )
a) b) c) d)
2) if $x=\operatorname{arcsine}(t)$ and $y=\log (1-t ?$ then $d 2 y / d x 2$ at $t=1 / 2$ $=?($ ans:- $-8 / 3$ )
a) b) c) d)
3) calculate the sum of 100 terms common to the series $\{17,21,25 \ldots\}$ and $\{16,21,26 \ldots\}$
4) find the sum upto $n$ terms $1+2^{*} x+3^{*} x$ ?........ Where
$x=1+1 / n$ (ans $n$ ?
5) A speaks true in $70 \%$ of cases and $B$ in $80 \%$ then what is prob. that $A \& B$ Always contradicts to each other.(ans:0.38)
6) fact: I)all dogs are trees II) trees provide wood conclusion:I)dogs provide wood
7) qns of GMAT type like
a) $x ? 1=0$
b) $x ? 1=0$
is $x>0$ ?
A)concluded from a)only B)......so on.
data sufficiency type
a) conclude from statement1 only b)concluded from statrement2 only c) concludeded from individualy
statement1 and statement2
d)concluded from statement1 and statement2
39)rod and a man are stationary with respect to lab. the man measures the rod in following ways
8) rod moves parallel to man the size reduces
9) man move parallel to rod size reduces
10) A man six feet tall is standing near a pole. On top of the pole is a light. What is the length of the shadow cast by the man?
a) man is 6 meter from the pole
b) the pole is 12 meters above ground
11) Train $T$ leaves town $A$ for town $B$ and travels at a constant rate speen. At the same time , train S leaves town B for town A and also travels at constant rate speed. Town $C$ ois between $A$ and $B$.
Which train is travelling fast? Train A, C,B lie in astraight line.
a) Train $S$ arives at town $C$ before Train T. b) $C$ is closer yto $A$ than to $B$
12) what is the value such that the roots of
$x^{\wedge} 3+3 x+a=0$ lies in $[0,1]$
A)1 B)-1 C)3 D) none.
13) a compound has $\mathrm{C} 40 \% \mathrm{H}$ by $6.07 \%$ \& O by $53.93 \%$. find ythe formula (ans:CH2O)
14) if words are forme by SURITI and arranged in a dictionary what will be the position of SURITI?(ans 236)
15) in an exam. There are 2 parts each containing 5 qns. one have to answer 6 qns with condition atmost 4 from one group. in how many wayss one can answer?(ans 200)
16) in how many ways 7 distinct objects can be distributed among 3 children?(ans 7P30
17) 3 GRE(Barrons 12th edition page 397(7-11)) analytical type qns.(question is littel different)
18) Ram walked 2 Km north then moves to his right to go 4 Km . Then again moves to his right to go 4 Km .

Again moves right to go 4km. where he meets Radha.
a) what is the direction at the first turn?(E.W.N.S)
b) what is the distance between starting pt. and the terminating pt?
20) qns Like :L if the code of the word EMFATION is '35248671' then
a) what is the word of the code ' 2771 '?
b) what is the code of the word FEAT ?
xx
21) what is the value of $L t(|\exp (x) d x /| \exp (2 x ? d x)$ ?
x->@ 00
('|' is for integration sign)
22) Given initial state ( $\mathrm{P} 1, \mathrm{~V} 1$ ) and final state(P2,V2). state is changed by 2 processes. what term is common to two processes? (ans: dq-dw)
23) at NTP how much butane can be burnt by a litre of oxygen) (ans: 72.8 gms0
24) Saturated plate currentin a triod depends on A)...B) (ans: Temp)
25)in which type of sort. for both average case and worst case efficiency is equal to nlogn? (ans: Merge sort)
26) Two circles of unequal radius intersect each other in A)1 pt B)2 pts. C)3 pts. D)nomne (ams:2 pts)
29)4 radicals was given which one shows positive inductive effect?(ans NH2-)
30) find the curve satisfying $x d y-y d x+\log x d x=0$ and passing through ( $1,-1$ )
31) Emitter and collector are placed horizontally with collector above. There is a saturation current, if there is a vertical electric field applied downwards what happen to the emmited electrons.
a) stopping potential decreases b) K.E increases (ans:
b))
32) 70 cars can park in $n$ rows with equal no in each rows, two cars are eliminated from each rows but 4 rows are added. find ythe no $n(a n s: 10)$
33) value of $f(x)=(1-\cos (1-\cos (x))) / x^{\wedge} 4$ for which it is continuous at $x=0$ (ans: $1 / 8$ )
34) infix notation is given determine the postfix (like as infix $a-b /\left(c^{*} d \$ e\right)$ postfix abcde\$*/-
35) if $A$ \& $B$ play a game and each is required to tell a no from 1-25 what's the probablity that they will contradict.
probable answer(24/25)
36) $3 /(1 ? 2 ?+5 /(1 ? 2 ? 3 ?+7 /(1 ? 2 ? 3 ? 4 ?+$

37 which is not the ideal solution (probable ans: ethanol + water)
38) cholorine + toluene in presense of anyhydrous FeCl2-----> orto+para cloro toluene
40) honeybee if touched will sting, man touches the bee conclusion: man is stucked by honeybee
41) we have 10 different digits to form a five digit no with at least one digit repeated.
42) 20 ml of $\mathrm{H} 2 \mathrm{~S}+20 \mathrm{ml}$ of Cl 2 will produce? (probable ans 120 ml of.........)
43)period of $y=\sin ((2 t+3) / 6$ pi) is ?
44)x rays emitted from a tube has wavelength between
a) lie greater then a particular wave length
b)between maximum and minimum range (ans : b)
part 2
questions for department

1) youngs modulus for tension Yt is $x$ times Youngs modulus for compression Yc.

ANS : 0.5
2)In a two stage air compression total work is 2 n /
$(n-1)$ * $P 1 \mathrm{~V} 1\left[(P 3 / P 1)^{\wedge}(n-1) / 2 n-1\right]$ what is the work done in high press cylinder if minimum work condition is applied.
3)cementite is Fe 3 c .
4)The friction radius in case of an bearing for uniform press is $\left[2 / 3^{\star}\left(\left(r 2^{\wedge} 2+r 1^{\wedge} 2\right) /\left(r 2^{\wedge} 2-r 1^{\wedge} 2\right)\right)\right]$ 5)About pitch to be cut on job on leath having perticular pitch on lead.pitch $=9 / 5$ with 4 tpi find change gears
6)A beam is simply supported at end pts A \& B. what is the moment at point $A$ due to uniformly distributed load W.
7) (inverted delta ie inverted triangle) is a symbl of.......
8) if work done in LP and HP cylenders, in compressor are W 1 and W 2 with politropic index n 1 and n 2 what is ratio of $\mathrm{W} 1 / \mathrm{W} 2$..
9)shaping machine work done (ans; LNC/1000)
10) 10 ton cannon fires a shell of 50 kg with a muzzle velocity $900 \mathrm{~m} / \mathrm{s}$ it takes 0.04 seconds to come out from barrel
when fired at 30 degree..find the velocity of cannon. 11)fins occur due to ......(casting defect)
12)by which of the following methods a job if heated will not warp?
a) vertical b)clamped on both sides c)clamped at regular intervels
three or four question on hoop stresses in spheres and cylenders....
1.employe 1.-you told me ,"two years ago, you have worked 3 times as much as me.
employe2.-yes, isaid that now i have worked twice as much as you.
how many years both of them have worked.------4\&8
2. there are 20 flag . aperson starts from firstflag and goes up to 12th flag in 24
sec . what is the total time he took to reach 20th
flag.--------24*19/11
3. mr X says that the 2 dial of the watch concide every 65 min . is the
or gaining the time, and by how much in a
hour.-----60/143min.
4.a person leaves the city at const speed. on his way he saw a mile-stone,a2 digit no.
after going for 1 hour , he sees another , milestone having the same number in reverse order
still further 1 hour he again sees the mile stone
showing the two number but a zero in between.
what is the velocity of $x$.-------------ans 45km
per hour
5.MOON

SOON
NOON
JUNE FIND JUNE? ----------ANS - 9326
6. a,b,C,D HAS 4 CARDS IN FRONT OF THEM. and the colour of the cards on 2 faces are diffrent.
2 red 2green, 2 blue.
a says- yellow or blue
b says- niether yellow nor blue
c says blue or yellow
d says- blue or green
if the open face colour is the order red, green, red,blue. find the hidden colour, if 2 of them says
lie.-----------red green red green
yellow blue yellow blue
7.A's wife died .he is living with his niece.B is a widow an dliving with her daughter and C is living with hr wife.C's wife suggested that they should live together.each member of the group should contribute $25 /$ - and the rest should be distributed equally .if the monthly expense was rs 92/- and each got whole sum of money(no fraction).after cutting their expenses what is amount each
will get? -----rs 2/-

8-a man leaves home for his office in time according to his watch but in the office he finds that he is not on time and checks his watch.he finds that his watch shows one hour when actually 65 min has been passed say whether his watch loses or gain time and by what amount per hour?
4 min 55 sec
9.three people $A, B, C$ live in a place , their occupations are policeman, fireman, teacher.
out of the five conditions, only two are true
(a) $A$ is the neighbour of techer.
(b) B is the neighbour of techer.
(c) policeman and fireman are neighbour of C .
(d) all of them are neighbour of each other.
(e) $B$ is the neighbour of fireman.

FIND THEIR OCCUPATION OF A,B,C.
ANS. A-POLICEMAN
B-FIREMAN
C-TEACHER.

