HCL Aptitude Test 3

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. What does the hexa number E78 in radix 7.
   (a) 12455
   (b) 14153
   (c) 14256
   (d) 13541
   (e) 131112
   Ans. (d)

4. Q is not equal to zero and k = (Q x n - s)/2.What is n?
   (a) (2 x k + s)/Q
   (b) (2 x s x k)/Q
   (c) (2 x k - s)/Q
   (d) (2 x k + s x Q)/Q
   (e) (k + s)/Q

5. From the following statements determing the order of ranking
   M has double the amount as D Y has 3 rupess more than half the amount of D
   Ans. Data insuffiecient

   Questions 6 - 10 are to be answered on the following data
   A causes B or C, but not both
   F occurs only if B occurs
   D occurs if B or C occurs
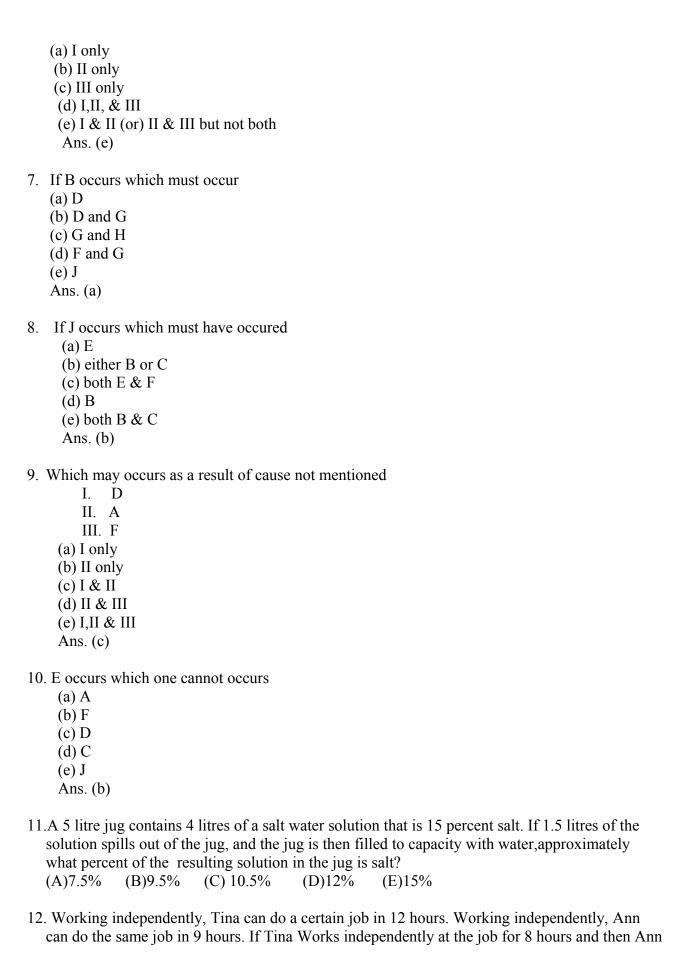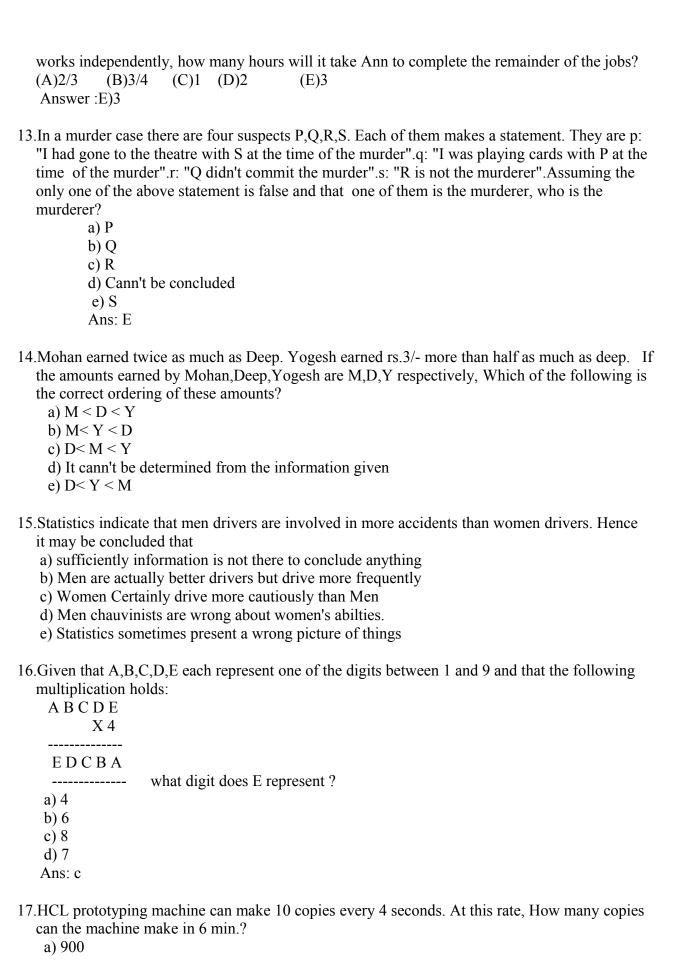   E occurs only if C occurs
   J occurs only if E or F occurs
   D causes G,H or both
   H occurs if E occurs
   G occurs if F occurs

6. If A occurs which of the following must occurs
   I. F and G
   II. E and H
   III. D

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

7. If B occurs which must occur
   (a) D
   (b) D and G
   (c) G and H
   (d) F and G
   (e) J
   Ans. (a)

8. If J occurs which must have occured
   (a) E
   (b) either B or C
   (c) both E & F
   (d) B
   (e) both B & C
   Ans. (b)

9. Which may occurs as a result of cause not mentioned
   I.   D
   II. A
   III. F
   (a) I only
   (b) II only
   (c) I & II
   (d) II & III
   (e) I,II & III
   Ans. (c)

10. E occurs which one cannot occurs
    (a) A
    (b) F
    (c) D
    (d) C
    (e) J
    Ans. (b)

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< Y < 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:
   A B C D E
        X 4

   E D C B A
   --------------   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

$$\frac{a+b}{c} - \frac{c}{a+b} =$$

a) 1
b) 11/30
c) 0
d) -11/30
e) -1
Ans: b

19.$10^2(10^8+10^8)$ =-------------- 10^4

a) $2(10)^4$
b) $2(10)^6$
c) 10^8
d) $2(10)^8$
e) 10^{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 travellingparty 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 trave in the same party with sQ cann't travel by the southern route U cann't change

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)i & ii is required
   (iii)i& 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 9.8sec 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   b).1 sec   c).7 sec   d).5 sec   e)none

30. How many sons X have qwe based on relation
   i)
   ii)
   iii)
   ans(data i,ii,iii is insufficient)

31.A sink has 12 lits of water some quantity of water is taken out. if the remainng water is 6 litres less then thewater taken out then quantity of water taken out is.
   a.3
   b.6
   c.9
   d.1

32.which is the 4 digit number whose second digit is thrice the first digit and 3'rd digit is sum of 1'st and 2'nd and last digit is twice the second digit.
   1.2674
   2.1349.
   3.3343
   4.3678

33.In a straight highway 2 cars starts from the same point in opposite directions each travels for 8 Kms and take left turn then travel for 6 Kms what is the distance between them now.
   1.16
   2.20
   3.25
   4.10

34.A problem based on house numbers.

35.Five students compare their test and quiz marks.some datas given.5 questions based on this.
      C Programming

36. 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...

37.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)x/y=2

38.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

39..output of the following.
```
main()
{
  int i;
  char *p;
  i=0X89;
  p=(char *)i;
  p++;
  printf("%x\n",p);
}
```
ans:0X8A

40.which of the following is not a ANSI C language keyword? ans:Function.

41.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 toaccess 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...

42. 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

43. What is the value of the expression $(3\wedge 6) + (a\wedge a)$?

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

      Answer : 5

44. 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: 3;

45. 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) 3,4

46. What is th output of the following program?

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

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

47. 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 : a) 10,6

48. 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) Prints : Jan..

49. 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++;
    }
```

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

Answer: d) NULL

50. 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",l);
  }
```

a)8 b)6 c)5 d)4 e)none

Answer : a)8

51. 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:b)20,12
```

52.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
```

53.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)

54.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
```

55. 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