Aptitude.

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

3. 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 concluded e) S

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 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

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

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

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

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

11. 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

12. 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

13. 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

14. 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

15. Six knights - P,Q,R,S,T and U - assemble for a long journey in Two traveling parties. For security, each traveling 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 traveling 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 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

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

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

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

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

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

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

3. 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

4. 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

5. 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

6. 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

7. 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

8. 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

General computer concepts

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

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

3. For 1 MB memory, the number of address lines required,
   (a)11
   (b)20
   (c)22
   (d) 24

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

5. Piggy backing is a technique for a) Flow control b) sequence c) Acknowledgement d) retransmition

6. the operating system (mapping of virtual to physical address)
7 A 177333(conversion of HEX "0xFEDB"in octal)

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

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

Aptitude.

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. 90
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. $\frac{10^2(10^8+10^8)}{10^4} =$
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 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)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 the
water 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

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) 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

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 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...

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 (3^6) + (a^a)?

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

Answer : 5

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: 3;

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) 3,4

11. 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

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) 3,7

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) 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++;
         }
```

) "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(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 : c)5

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)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";
  printf(%15.10s",s);
 }
```

a)Hello,.World...

b)....Hello,.Wor

c)Hello,.Wor....

d)None of the abov

Aptitude

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

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

Ans: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
Ans: 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
Ans :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%
Ans :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)
Ans :(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%
Ansr :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
Ans :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
Ans :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
Ans :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%
Ans :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
Ans :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
Ans :C) 5

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

16. 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

17. 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

4.A problem based on house numbers.

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

Technical Section

1 In ANSI C which is such thing is not in Java.

```
typedef struct node
    {
     int
     NODEPTR * NODE
    }
```

2 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

3 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

4. Piggybacking is done for, Ans=>Acknowledgement.

5. WHICH IS NOT BASIC data type ans.Char*

6. 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)

7 Two variable cannt have the same name in

a)function b) block c) file d)--- C Section

8 #define inc(x) x++
main()
{
int t=1;
printf("%d",inc(t++));
}

9 . one or two que for the complicated declaration.

10. Const char *a="Abcd"; char const *a="lmno"; base do this,Two que were there.

11. char *p ;
char q[20];

12. int i,*p=&i;
p=malloc(10);
free(p);
printf("%d",p);
ans : garbage

13. int i=20,*j=&i
f(i)
printf("%d",i);

14. #define val 1+2
printf("%d%d",val/val,val^3)
ans : 3 9

15. #define "this" "#"
#define (x,y) x##y
printf("this","this is")
ans: compilation error (tested)

16. (2^2)+(a^a)

17. int a ,b=7
a=b<4?b<<1:b>4?7>>1:a
ans.3

18. one que on c++ class member function
ans.d
19. work of memory management unit.
20. who relate virtual memory to physical memory ans.os
21. memory is allocated to variable
a)when declared b)when define c)...
22. Question on double linked list
23. Define success 1
define failure -1
if(condition)
printf(success);
else
printf(failure);
ans success

24 . 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;

25. 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

26. define null 0 ans=0;
27. #define inc(x) x++
main()
{
int t=1;
printf("%d",inc(t++));
}
ans.error

28. argument in funtion can be passed
1)by value 2)by refference 3)....
29. main
{int x=1,y=2,z=3;
x=y==z;
printf(x);
}
30. in switch float is not used
31. one question on register variable.

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

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

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

6. Which holds true for the following statement 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
Ans. (b)

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
Ans.(b) Varying No. of Arguments.

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

Ans.(a) -128

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 (count(*) mod n)=0
(b) select employee number from employe A, employe B where A employe number>=B employ number
group by employee number having(count(*) mod n=0)
(c) both (a) & (b)
(d) none of the above

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

Ans c) 6

2. Find the output for the following C program

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

Ans.36

3. Find the output for the following C program

```
fn f(x)
 { if(x<=0)
  return;
```

```
 else f(x-1)+x;
}
```

4. Find the output for the following C program

```
i=20,k=0;
for(j=1;j<i;j=1+4*(i/j))
{k+=j<10?4:3;
}
printf("%d", k);
```

Ans. k=4

5. Find the output for the following C program

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

Ans. i=20

6. Find the output for the following C program

```
int x=5;
y= x&y
```

7.Find the output for the following C program

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

Ans. 13

8. Find the output for the following C program

```
f=(x>y)?x:y
```

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

Ans. (a)

9. What is the sizeof(long int)

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

10. Which of the function operator cannot be over loaded

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

11. Find the output for the following C program

```
main()
{intx=2,y=6,z=6;
 x=y==z;
```

```
printf(%d",x)
  }
```

Section C

Section C (Programming Skills) Answer the questions based on the following program

```
STRUCT DOUBLELIST
{ DOUBLE CLINKED
INT DET; LIST VOID
STRUCT PREVIOUS; (BE GIVEN AND A PROCEDURE TO DELETE)
STRUCT NEW; (AN ELEMENT WILL BE GIVEN)
}
 DELETE(STRUCT NODE)
 {NODE-PREV-NEXT NODE-NEXT;
 NODE-NEXT-PREV NODE-PREV;
 IF(NODE==HEAD)
 NODE
 }
```

1. In what case the prev was
   (a) All cases
   (b) It does not work for the last element
   (c) It does not for the first element
   (d) None of these

Answer the questions based on the following program

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

2. What is the output of the following program

```
main()
{ int var=25,varp;
 varp=&var;
 varp p = 10;
 fnc(varp)
 printf("%d%d,var,varp);
 }
```

   (a) 20,55
   (b) 35,35
   (c) 25,25
   (d)55,55

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

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

A pointer of the head of the linked list is maintained as a global variable, whose definition is dlink_t *head; The 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 futions remove_element

a) It work when head is the same as rp

b) It does not work when rp is the last element on the list

c) It sets the head of the list correctly

d) It works in all cases

Answer :B) It does...

4. Consider the following function written in c:

```
#define NULL 0
char *
index(sp,c)
register char *sp,c;
 {
 do {
     if(*sp == c)
       return (sp);
       } while (*sp++);
      return NULL;
         }
```

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

a) Always

b) Always, but fails when the first byte contais the character c

c) works when c is a non NULL character only

d) Works only when the character c is found in the string

ans: a

5. What is printed when this program is executed

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

a) 4

b) 5

c) 6

d) 7

ans: a

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

```
main()
```

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

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

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

a)
```
strcpy (char *dst,char *src)
{
 while (*src)
 *dst++ = *src++;
 }
```

b)
```
strcpy (char *dst,char *src)
 {
    while(*dst++ = *src++ )
 }
```

c)
```
strcpy (char *dst,char *src)
 {
   while(*src)
   { *dst = *src;
     dst++; src++;
      }
    }
```

d)
```
strcpy(char *dst, char *src)
      {
         while(*++dst = *++src);
      }
```

ans:b

8. Consider the following program

```
main()
      {
       int i=20,*j=&i;
       f1(j);
       *j+=10;
        f2(j);
        printf("%d and %d",i,*j);
       }
        f1(k)
        int *k;
          {
           *k +=15;
           }
              f2(x)
              int *x;
           {
             int m=*x,*n=&m;
             *n += 10;
             }
```

The values printed by the program will be
a) 20 and 55
b) 20 and 45
c) 45 and 45
d) 45 and 55
e) 35 and 35

9. 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

Ans..b) 16.

10. COnsider the following of c code in two files which will be linked together and executed .

```
a.c:   int i;
     main()
       {
        i = 30;
        f1();
        printf("%d\n",i)
       }
        b.c:   static int f1()
       {
        i+=10;
        }
```

which of the following is true ?

a) a.c will fail in compilation phase because f1() is not declared
b) b.c will fail in compilation because the variable i is not declared
c) will print 30
d) will print 40
e) a & b
ans: e) a & b

11. Consider the following 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

12. 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

APTITUDE PAPER

1 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.

2 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.

3 A q's on family relation was given like How many sons X has, I P is the daughter of X ,II some condt., III some condt. ANS al I ,II, III together are not sufficient.

4 A q's in which a name KAPIL is given he visits manoj's home.some condts given. ANS b)
5 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 , I....., II....., ANS both I and II
6 A quest on crypto graphy like
A B C D
E F G H

. ..... .is A=, find the other values. practice these types of quest.
7. 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
8. Piggy backing is a technique for a) Flow control b) sequence c) Acknowledgement d) retransmition
ans: c piggy backing
9.. The layer in the OST model handles terminal emulation a) session b) application c) presentation d) transport
ans: b application
10 ans: a odd numbers of errors
11. 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)
12 c 20(no of address lines in 1MB of memory)
13 A 120(25 hz processor,what is the time taken by the instr which needs 3 clock cycles)
14 B synchronise the access(semaphores used for)
15 A system call(context switching is used in)
16 B the operating system(mapping of virtual to physical address)
17 A 177333(conversion of HEX "0xFEDB"in octal)
18 D used as a network layer protocall in network and windows(OLE) system
19 B has to be unique in the sub network(internet address)
20. 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
21 . 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
22. which feature in ANSI C but not in JAVA.??ANS variable arguments.
23. preprocessor does not do one of the following??ANS type checking.
24. long int size a) 4 bytes b) 2 bytes c) compiler dependent d) 8 bytes
ans: compiler dependent
25. x=2,y=6,z=6 x=y==z;
printf(%d",x) ?ANS 1

26. 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)
27. What will be the out put of the following program

```
main()
 {
  char *p;
  p=malloc(10);
  free(p);
  printf("%d",p);
  }
```

ANS compilation error

28. a=(10,15), b=10,15 what are the values of a & b in ANSI C ANS 15,10
29 main()

```
{
   int x=10,y=15,z=16;
   x=y=z;
   printf("%d",x);
 }
```

ANS 0

30 f(n) f(x)

```
{
    if(x<=0)
        return;
   else f(x-1)+x;
 }
```

find the value of fn(5)? ANS 15.

31 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.

32A code will be given which searches a particular char in the string. ANS:: it always works.

33. main()

```
{
 int var =25,varp;
 varp=&var;
 varp p=10;
 fnc(varp);
 printf("%d%d",var,varp);
}
```

ANS::55,55 (check this out)

34. #define VALUE 1+2

```
main()
  {
     printf("%d and %d\n",VALUE/VALUE,VALUE*3);
   }
  ANS:: 5,7
```

35What is the value assigned to the variable a if b is 7 a=b>8?b<<2:b>4?b>>1:b; ANS::3

36.the value of the following expr (2^3)+(a^a) is a) 1 b)2 c) 3 d) insufficient data

37 which of the following is not basic data type ANS char*

38. the declaration of the variable does not result in one of the following ANS allocatrion of the storage space for the
varable.

39. in C parameters are passed by ANS:: value only.

40. 2 variables cannot have the same name if they are ANS:: in the same block.

41.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.

42.macros and functions do not differ in the following aspects ANS::variable no of arguments.

43.one q's in which he will give some different forms of STRCPY function you will have to find out which form is correct.