

1.5% more than inflation rate which is of 6.5% a year , then what will be the

cost of a kg of paper after 2 years?

a) 29.12 (b) 29.72 (c) 30.12 (d) 32.65 (e) none of these

2. In A,B,C are having some marbles with each of them. A has given B and C the

same number of marbles they already have to each of them. then, B gave C and A

the same no. of marbles they have, then C gave A and B the same no. of marbles

they have. At the end A,B, and C have equal no. of marbles.

(i) If x, y, z are the marbles initially with A,B,C respectively

then the no of

marbles B have at the end

(a) $2(x-y-z)$ (b) $4(x-y-z)$ etc.

(ii) If the total no. of marbles are 72, then the no. of marbles with A at the starting

a. 20 b. 30 c. 32

3. If a car starts from A towards B with some velocity due to some problem in

the engine after travelling 30km. If the car goes with $\frac{4}{5}$ th of its actual

velocity the car reaches B 45min later to the actual time. If the car engine

fails after travelling

45km, the car reaches the destination B 36min late to the actual time

, what is

the initial velocity of car and what is the distance between A and B in

km

ans) 20 & 130.

4. A person has Rs 100/- in his pocket, he can as 25 pencils or 15 books. He kept

t

15% of the money for travelling expenses and purchased 5 pencils. So how

many

books he can purchase with the remaining money.

5. ten questions on analogies.

ex: hammer : carpenter ::

knife : butcher.

6. The values of shares A, B and C from January to June are as follows.

month	A	B	C
JAN	30	60	80
FEB	35	65	85
MAR	45	75	65
APR	40	75	82
MAY	55	75	85
JUNE	50	75	80

i) During this period which share has undergone max fluctuation?

ii) In which month it is possible to buy B and C selling A?

iii) In which month the share values are very low?

iv) By purchasing one share of A and 4 each of B and C in the beginning

of the

period, to get max profit when these shares should be sold?

v) ?

7. In a computer institute 9 languages can be taught. The module is of 6 months duration and only six languages each of one month can be taught. In addition to

that BASIC is always there and should be in first month itself

word perfect is to be taught in the preceding week of word star.

FORTRAN can not be taught until COBOL is completed prior to that

BINO, FIFO never be taught in single module

languages are BASIC, WORD STAR, WORD PERFECT, FORTRAN, COBOL, BINO, FIFO,

LOTUS, C

i. Of the following which module is possible based on above conditions.

ii) If word star is in 3rd month , what could be in 6th month.

iii) If COBAL is in the 2nd month and BINO in 6th month are there in addition t

o

the above condition, FORTRAN will be in which month.

8. In a class , except 18 all are above 50 years. 15 are below 50 years of age.

how many people are there

a) 30 b) 33 c) 36 d) none of these.

9. A square plot of some size , at four corners equal squares of some size are

cut and is formed as open box. If this open box carries 128ml of oil. What is

the size of the plate i.e. side

a.17 b.14 c.13

10. In a square , all the mid points are joined. the inner square is shaded. If

the area of the square is A, what is the shaded area?

11. two questions on basic angles i.e given a circle, a few chords or diameter

is drawn etc.

12. $@(a,b) = (a+b)/2$

$/(a,b) = a.b$

$*(a,b) = ab$, if $a=1$, $b=2$ find

i) $/(a, (@(a,b), *(a,b)))$

ii)

13. $(x\#y) = x+y-xy$

$(x*y) = (x+y)/2$

i) $(x\#y)\#(x*y) \< (x\#y)$, which of the below values of x, y will satisfy this equation

ii) $(a*b)\#(b*c) \< (a\#b)*(b*c)$, what values of a,b,c satisfy the above.

14. By using the data given below answer the following questions.

	B.tech	M.sc	M.A
male	20		
female			80
total	60		

some thing similar to that question.

- 40% of females are B.Techs
- Half of the students are either from B.Techs of M.Sc
- ...

- what is the no. of female B.techs
-

dont remember this question , just for an example this has been give
n

TISL (TATA-IBM) PAPER

Q9). what will be the result of executing following program

```
main
{
char *x=&quot;new&quot;;
char *y=&quot;dictionary&quot;;
char *t;
void swap (char * , char *);
swap (x,y);
printf(&quot;(%s, %s)&quot;;,x,y);

char *t;
t=x;

x=y;
y=t;
printf(&quot;-(%s, %s)&quot;;,x,y);
}
void swap (char *x,char *y)
{
char *t;
y=x;
x=y;
y=t;
}
```

- (New,Dictionary) - (New,Dictionary)
- (Dictionary,New) - (New,Dictionary)
- (New,Dictionary) - (Dictionary,New)
- (Dictionary,New) - (Dictionary,New)

e).None of the above

(Ans will be b or e) check

Q10).If a directory contains public files (can be valied and used by any one) which should not be altered ,the most liberal permissions that can be given to the directory is

a)755

b)777

c)757

d)775

e)None of the above

(Ans a)

11) what would the following program results in

```
main()
{
char p[]="string";
char t;
int i,j;
for(i=0,j=strlen(p);i<j;i++)
{
t=p[i];
p[i]=p[j-i];
p[j-i]=t;
}
printf("%s",p);
}
```

a)will print:string

b)will not print anything since p will be pointing to a null strin

g

c)will print:gnirts

d)will result in a complication error

e)will print invallid characters(junk)

(Ans will be b) check

12) After the following command is executed

```
$ ln old new
```

a listing is performed with the following output

```
$ ls -li
```

```
total 3
```

```
15768 -rw-rw-rw- 2 you 29 Sep 27 12:07 old
```

```
15768      " "      " " " "
```

```
" " new
```

```
15274      " "      1 " 40 " " 09:34
```

```
veryold
```

which of the following is true

- a) old and new have same i-node number, 2
 b) " " " " " "
 " , 15768
 c) old and new have nothing to do with each other
 d) very old and new are linked
 e) very old and old are linked
 (Ans is b)
- 13) What will be the result of executing the following statement

```
int i=10;
printf(" %d %d %d", i, ++i, i++);
```

 a) .10 11 12
 b) .12 11 10
 c) .10 11 11
 d) .result is OS dependent
 e) .result is compiler dependent
 (Ans is e)
- 14) What does extern means in a function declaration
 a) the funct has global scope
 b) the funct need not be defined\
 c) nothing really
 d) the funct has local scope only to the file it is defined in
 e) none of the above
 (Ans will be c)
- 15) What will be result of the following program

```
main()
{

void f(int, int);
int i=10;
f(i, i++);
}
void f(int i, int j)
{
if(i>50)
return;
i+=j;
f(i, j);
printf(" %d", i);
}
```

 a) .85, 53, 32, 21
 b) 10, 11, 21, 32, 53
 c) 21, 32, 53, 85
 d) 32, 21, 11, 10
 e) none of the above
 (Ans is e)
- 16) . MS windows 3.1 is a
 a) operating system
 b) Application
 c) Programing language

d) database

e) shell

(Ans will be b)

17) .MS Windows 3.1 supports which tyoe of multi-tasking?

a) cycle

b) executive

c) preemptive

d) Non-preemptive

e) Manual

(Ans)

18) The commandln/bin/mail /usr/you/bin/m

a) will not be executed because you are linking files across different file systems

b) results ln /bin/main being the same file as /usr/you/bin/m

c) results in 2 links to the file mail

d) " " " "

e) none

(Ans will be b)

19) In a standerd directory lay out ,/etc is the directory where

a) basic programs such as who and ed reside

b) device related files reside

c) various administrative files such as password file reside

d) short-lived files created during program execution reside

e) the C sub-routine library resides

(Ans is c)

20) The command echo *

a) echoes all files in the current directory

b) prints * on the screen

c) is an invalid command

d) is the same as the command echo*

e) is the same as echo"*" ;

(Ans is a)

21) What will be the result of the following segment of the program

```
main()
{
char *s="hello world";
int i=7;
printf(";%s",s);
}
```

a) syntax error

b) hello w

c) Hello

d) o world

e) none

(Ans is b)

22) What will be the result of the following program

```
main()
{
int a,b;
printf("enter two numbers :");
```

```
scanf(&quot;%d%d&quot;;,a,b);
printf(&quot;%d+%d=%d&quot;;,a,b,a+b);
}
```

- a) will print the sum of the numbers entered
- b) syntax error during compilation
- c) will generate run time error /core dump
- d) will print the string "a+b = a+b"; on the screen
- e) none of these

(Ans is c)

23) What is the size of 'q' in the following program?

```
union{
    int x;
    char y;
    struct {
        char x;
        char y;
        int xy;}p;
    }q;
```

- a) 11
- b) 6
- c) 4
- d) 5
- e) none

(Ans is b why because no of bytes for int =4 given in instructions)

24) Which message is displayed when a window is destroyed

- a) WM_CLOSE
- b) WM_DESTROY
- c) WM_NCDESTROY
- d) WM_POSTDESTROY
- E) NONE

(Ans is b)

25) Send Message and postmessage are

- a) send message puts the message in the message queue and results, postmessage processes the message immediately
- b) Sendmessage processes the message immediately, postmessage puts the message in the queue and returns
- c) Both put the message in the message queue and returns
- d) Both process the message immediately
- e) None of the above

(Ans will be b check)

26) Which of the following message is used to limit the size of teh Window

- a) WM_SIZE
- b) WM_PAINT
- c) WM_GETMINMAXINFO
- d) WM_COMMAND
- e) WM_CREATE

(Ans is a)

27) until who |grep mary


```
do
    sleep 60
done
a) is syntactically incorrect
b) waits 60 seconds irrespective of Mary being logged in or not
c) waits until Marry is logged in
d)waits till Mary exited
e)None
(Ans is c)
```

28)The UNIX system call that transforms an executable binary file into a process is

```
a)execl()
b)execv()
c)execle()
d)execve()
e)All of the above
(Ans will be e check)
```

29)Which of the following is true about fork()

a) it transforms an executable binary file into a process that overlays the

process which made the fork() system call.NO new process is created.

b) Causes the creation of a new process, the CHILD process, with a

new

process ID

c)Causes the creation of a new process, the CHILD process ,with th

e

same

process ID as the parent

d)fork() has nothing to do with processes

e)fork() is not a system call

(Ans is b)

30) What do the following variable names represents?

sort register

volatile default

a) short - is not a reserved keyword

b) volatile & register - is not a reserved keyword

c)all the above are keywords

d) all are valid variable names

e) default - is not a reserved keyword

(Ans is c)

31)What will be the result of the following program

```
main()
```

```
{
```

```
char *x="String";
```

```
char y[] = "add";
```

```
char *z;
```

```
z=(char *) malloc(sizeof(x)+sizeof(y)=1);
```

```
strcpy(z,y);
```

```

    strcat(z,y);
    printf(&quot;%s+%s=%s&quot;;,y,x,z);
}

```

- a)Add+string=Add string
 - b)syntax error during compilation
 - c)run time error/core dump
 - d)add+string=
 - e)none
- (Ans will be e consider cap&small letters)

32)What does the following expression means?

```
char *(*(a[N])())();
```

- a) a pointer to a function returning array of n pointers to function

returnin

g

character pointers

- b) a function return array of N pointers to funcions returning pointers to characters
- c) an array of n pointers to function returning pointers to characters
- d)an arrey of n pointers to function returning pointers to functions returning pointers to characters
- e) none of the above

(ANS IS d)

33)Which of the following is not a GDI object

- a)HBRUSH
- b)HPEN
- c)HBITMAP
- d)HRGN
- e)HWND

(Ans ic e)

34) Which of the following message is used to initialize the contents of a dialog

- a)WM_CREATE
- b)WM_SIZE
- c)WM_COMMAND
- d)WM_INITDIALOG
- e)none

(Ans will be d)

35)Interprocess communication in UNIX can be achieved using

- a)pipe
- b)Message
- c)Semaphores
- d)Shared Memory
- e)All of the above

(

Ans is e)

36) Which of the following is true

- a)UNIX is a time sharing multi-user OS

- b)UNIX has a device independent file system
- c)UNIX is full duplex
- d)UNIX has command interpreter
- e)All of the above

(Ans is e)

- 45Q). PS1 pwd
 export PS1 results in
 a). your primary prompt being your current directory
 b). " " and secondary prompts being the current

dir

- c). " " prompt being your home dir
- d). " " and secondary prompts being the home di

r

- e). None of the above.

- 8Q). If you type in the command
 nohup sort employees > list 2 > error out &
 and log off ,the next time you log in .the output
 will be
 a). in a file called list and the error will de typed in
 a file error out
 b). there will be no file called list or error out
 c). error will be logged in a file called list and o/p
 will be in error out
 d). you will not be allowed to log in
 e). none of the above

- 7Q). In UNIX a files i-node
 a)is a data structure that defines all specifications
 of a file like the file size ,number of lines to a
 file ,permissions etc.
 b).----
 c). - - - -
 d). _ _ _

(ans is -----(a))

- 44Q). The UNIX shell is....
 a).does not come with the rest of the system
 b).forms the interface between the user and the kernal
 c) does not give any scope for programming
 d) deos not allow calling one program from with in another
 e) all of the above

(ans is (b))

- 48Q).enum number { a=-1, b= 4,c,d,e}
 what is the value of e ?

7,4,5,15,3

(ans is 7) check again

- 3Q).The very first process created by the kernal that runs
 till the kernal process is haltes is
 a)init

- b) getty
- c)
- d)
- e) none

(Ans is a)

47 Q) Result of the following program is

```
main()
{
    int i=0;
    for(i=0;i<20;i++)
    {
        switch(i)
        {
            case 0:i+=5;
            case 1:i+=2;
            case 5:i+=5;
            default i+=4;
            break;}
        printf(&quot;%d,&quot;;,i);
    }
    a) 0,5,9,13,17
    b) 5,9,13,17
    c) 12,17,22
    d) 16,21
    e) syntax error
    (Ans is d )
```

1 Q) What is the result

```
main()
{
    char c=-64;
    int i=-32
    unsigned int u =-16;
    if(c>i){
        printf(&quot;pass1,&quot;);
    }
    if(c<u)
        printf(&quot;pass2&quot;);
    else
        printf(&quot;Fail2&quot;);
    else
        printf(&quot;Fail1);
    if(i<u)
        printf(&quot;pass2&quot;);
    else
        printf(&quot;Fail2&quot;);
}
a) Pass1,Pass2
b) Pass1,Fail2
c) Fail1,Pass2
d) Fail1,Fail2
```

e) none
(Ans is c)

2) In the process table entry for the kernel process, the process id value is

a) 0 b) 1 c) 2 d) 255 e) it does not have a process table entry

Ans) a

4) Which of the following API is used to hide a window

a) ShowWindow
b) EnableWindow
c) MoveWindow
d) SetWindowPlacement
e) None of the above

Ans) a

5) what will the following program do?

```
void main()
{
    int i;
    char a[]="String";
    char *p="New String";
    char *Temp;
    Temp=a;
    a=malloc(strlen(p) + 1);
    strcpy(a,p);                                //Line no:9//

    p = malloc(strlen(Temp) + 1);
    strcpy(p,Temp);
    printf("(&quot;(%s, %s)&quot;,a,p);
    free(p);
    free(a);

}                                                //Line no 15//
```

a) Swap contents of p & a and print:(New string, string)
b) Generate compilation error in line number 8
c) Generate compilation error in line number 5
d) Generate compilation error in line number 7
e) Generate compilation error in line number 1

Ans) b

6) In the following code segment what will be the result of the function, value of x , value of y

```
{
    unsigned int x=-1;
    int y;
    y = ~0;
    if(x == y)
```

```

        printf(&quot;same&quot;);
    else
        printf(&quot;not same&quot;);
}

```

- a) same, MAXINT, -1
- b) not same, MAXINT, -MAXINT
- c) same , MAXUNIT, -1
- d) same, MAXUNIT, MAXUNIT
- e) not same, MAXINT, MAXUNIT

Ans) a

37) PATH = /bin : /usr : /yourhome

The file /bin/calender has the following line in it

```
cal 10 1997
```

The file /yourhome/calender has the following line in it

```
cal 5 1997
```

If the current directory is /yourhome and calender is executed

- a) The calendar for May 1997 will be printed on screen
- b) The calendar for Oct 1997 will be printed on screen
- c) The calendar for the current month(whatever it is) will be printed
- d) Nothing will get printed on screen
- e) An error message will be printed

38) what will be the result of the following program ?

```

char *gxxx()
{
    static char xxx[1024];
    return xxx;
}

main()
{
    char *g=&quot;string&quot;;
    strcpy(gxxx(),g);
    g = gxxx();
    strcpy(g,&quot;oldstring&quot;);
    printf(&quot;The string is : %s&quot;,gxxx());
}

```

- a) The string is : string
- b) The string is :Oldstring
- c) Run time error/Core dump
- d) Syntax error during compilation
- e) None of these

Ans) b

39) What will be result of the following program?

```

void myalloc(char *x, int n)
{
    x= (char *)malloc(n*sizeof(char));
    memset(x,\0,n*sizeof(char));
}
main()
{
    char *g="String";
    myalloc(g,20);
    strcpy(g,"Oldstring");
    printf("The string is %s",g);
}

```

- a) The string is : String
- b) Run time error/Core dump
- c) The string is : Oldstring
- d) Syntax error during compilation
- e) None of these

Ans) c (check it)

40) which of the following function is used to repaint a window immediately

- a) Sendmessage(hWnd,WM_PAINT,.....)
- b) InvalidateRect(.....)
- c) MoveWindow
- d) WM_COPY
- e) None

41) which function is the entry point for a DLL in MS Windows 3.1

- a) main
- b) Winmain
- c) Dllmain
- d) Libmain
- e) None

Ans) b

42) The standard source for standard input , standard output and standard error

is

- a) the terminal
- b) /dev/null
- c) /usr/you/input, /usr/you/output/, /usr/you/error respectively
- d) None

Ans) a

43) What will be the result of the following program?

```

main()
{
    char p[]="String";
    int x=0;
}

```

```

        if(p=="String")
        {
            printf("Pass 1");
            if(p[sizeof(p)-2]=='g')
                printf("Pass 2");
            else
                printf("Fail 2");
        }
        else
        {
            printf("Fail 1");
            if(p[sizeof(p)-2]=='g')
                printf("Pass 2");
            else
                printf("Fail 2");
        }
    }

```

- a) Pass 1, Pass 2
- b) Fail 1, Fail 2
- c) Pass 1, Fail 2
- d) Fail 1, Pass 2
- e) syntax error during compilation

46) Which of the choices is true for the mentioned declaration ?

```

const char *p;
and
char * const p;

```

- a) You can't change the character in both
- b) First : You can't change the character & Second : You can't change the pointer
- c) You can't change the pointer in both
- d) First : You can't change the pointer & Second : You can't change the character
- e) None

Ans) b (check it)

49) The redirection operators > and >>;

- a) do the same function
- b) differ : > overwrites, while >> appends
- c) differ : > is used for input while >> is used for output
- d) differ : > write to any file while >> write only to standard output
- e) None of these

Ans) b

50) The command

```
grep first second third /usr/you/myfile
```

a) prints lines containing the words first, second or third from the file

/usr/you/myfile

b) searches for lines containing the pattern first in the files second, third

and /usr/you/myfile and prints them

c) searches the files /usr/you/myfiel and third for lines containing the word

s
first or second and prints them

d) replaces the word first with the word second in the files third and /usr/you/myfile

e) None of the above

Ans) b

APTITUDE TEST

Missing leter

- 1).eefgghii- (Ans j)
- 2)
- 3)defdefghi- (Ans g)
- 4)cdxyzfghxyz- (Ans i)
- 5)defdegde- (h)
- 6)abczabcyabc- (x)
- 7)fgbhibjkb- (l)
- 8)- - - - - (Ans is r)
- 9)aarbsctarb- (s)
- 10)bccdeefg- (g)
- 11)efhikl- (n)
- 12)abccdeffg- (h)
- 13amnbopc- (q)
- 14)tttssrqqqp- (p)
- 15)ddffhhjj- (l)
- 16)mnmnklopopkl- (q)
- 17)cddeeefff- (f)
- 18)gfed- (c)
- 19)dfhjl- (n)
- 20)abcijdefij (g)
- 21)efgefghfghi- (e)

```

22) bcbddedfgfghi-      (h)
23) aababcccdc-         (d)
24) aibcidef-            (i)
25) cehl-                (q)
26) abdehimn-           (s) check again
27) becfdge-            (h)
28) agbhc-              (i)
29) adhko-              (r)
30) efghjklno-          (q)
31) aedhg-              (k)
32) aeibf-              (j)
33) zdwgt-              (J)
34) zeyijxg-            () find
35) cqreuvvg-           (y)
36) ksjtuih-            (v)
37) rsjtuhvw-           (f)
38) ieajfbk-            (g)
39) hebifej-            (g)
40) hjlmiel-            (h)

```

TOTAL 60 QUE'S 25-PROBLEMS & 35 FIGURES (figure series, we have to find next coming figure)

HERE 13 PROB'S ARE THERS.REMAINING ALSO ALMOST LIKE THIS .

- 1) A boy multiplied a number with 10 and got 100, instead of dividing it . If he divided it what would be the answer?
(Ans is 1)
- 2) If 12 shell cup board requires 18ft of wall space then
30 " ; " ; " ; " ; how much wall space?
(Ans is 45)
- 3) The average salary of three employees is 95Rs.per week.
If one employee earns 115 and other earns 65 rupees.
how much will third be earn?
(Ans is 105Rs)
- 4) A company installed 36 punching machines at the beginning of the year. In the spring they installed 9 additional m/c's and then discontinued 18 in the fall. How many were still installed at the end of the year?
(Ans is 9) check
- 5) During a given week a programmer spends $\frac{1}{4}$ of his time preparing charts, $\frac{3}{8}$ of his time for coding, rest of his time for debugging the programs. If he had 48 hrs during the week how many hours did he spend debugging the program.
(Ans is 18hrs)
- 6) A 16 story building has 12000ft on each floor. Company A

rents 7 floors and company B rents 4 floors. What is the number of square feet of unrented floor space?

(Ans is 60000 sqft)

- 7) A man owns $\frac{2}{3}$ of a computer service bureau business and sells $\frac{3}{4}$ of his share for \$75000. What is the value of the business.

(Ans is 150,000)

- 8) A computer printer produces 176400 lines in a given day. If the printer was in operation for 7hrs during the day how many lines did it print per minute?

(Ans is 420)

- 9) From its total income a company spent \$20000 for advertising half of the remainder on salaries and had \$6000 left. What was the total income?

(Ans is \$32000)

- 10) In a certain company 20% of the men and 40% of the women attended the annual company picnic. If 35% of all the employees are men. What % of all the employees went to the picnic?

(Ans is 33%)

- 11) The dimensions of certain IBM m/c are 48×30 . If the size of the m/c is increased proportionally until the sum of its dimensions equals to 156. What will be the increase in the shortest side?

(Ans is 30)

- 12) If a card punch operator can process 80 cards in half an hour. How many cards can this process in 7hr30min?

(Ans is 1200)

- 13) In a computer tape library there are two racks with 40 tapes per rack. In a given day 30 tapes are in use. What fraction remains in the rack?

(Ans is $\frac{5}{8}$)

>From csa97013@yaman.cse.iitd.ernet.in Thu Aug 20 16:19:06 1998
Received: from mail.iitk.ac.in (mail.iitk.ac.in [202.54.56.131]) by qasid .cc.iitk.ernet.in (8.8.3/8.8.3) with ESMTP id QAA05084 for sraos@qasid.cc.iitk.ernet.in>; Thu, 20 Aug 1998 16:19:02 +0500 (GMT+0500)
Received: from desh.cse.iitd.ernet.in ([202.141.68.3]) by mail.iitk.ac.in (8.8.8/8.8.7) with ESMTP id LAA02039

for sraos@iitk.ac.in>; Thu, 20 Aug 1998 11:19:31 +0530 Received: from yaman.cse.iitd.ernet.in (csa97013@yaman.cse.iitd.ernet.in [202.141.65.22]) by desh.cse.iitd.ernet.in (8.8.7/8.8.7) with ESMTP id PAA22875 ; Thu, 20 Aug 1998 15:42:48 +0530 Received: from localhost (csa97013@localhost) by yaman.cse.iitd.ernet.in (8.8.7/8.8.7) with SMTP id PAA18091 ; Thu, 20 Aug 1998 15:42:22 +0530 Date: Thu, 20 Aug 1998 15:42:19 +0530 (IST) From: "N. Narasimha Swamy" csa97013@cse.iitd.ernet.in> Reply-To: "N. Narasimha Swamy" csa97013@cse.iitd.ernet.in> To: sf -- fani chaganty@mailcity.com>, rcmurthy sarben@hijli.iitkgp.ernet.in>, surreddi sraos@iitk.ac.in> ,

venkanna venkat@cse.iitb.ernet.in>
 cc: bvjmanohar@hotmail.com
 Subject: hai friends
 Message-ID: <Pine.LNX.3.96.980820153706.17986A-100000@yaman.cse.iitd.ernet.in>
 MIME-Version: 1.0
 Content-Type: TEXT/PLAIN; charset=US-ASCII
 Status: RO

hai friends here is ibm global services paper and some other questions .

IBM GLOBAL SERVICES

1. In 1978, a kg of paper was sold at Rs25/-. If the paper rate increases at 1.5% more than inflation rate which is of 6.5% a year, then what will be the cost of a kg of paper after 2 years?
 a) 29.12 (b) 29.72 (c) 30.12 (d) 32.65 (e) none of these
2. In A, B, C are having some marbles with each of them. A has given B and C the same number of marbles they already have to each of them. then, B gave C and A the same no. of marbles they have, then C gave A and B the same no. of marbles they have. At the end A, B, and C have equal no. of marbles.
 (i) If x, y, z are the marbles initially with A, B, C respectively .
 then th

e no of
marbles B have at the end
(a) $2(x-y-z)$ (b) $4(x-y-z)$ etc.

(ii) If the total no. of marbles are 72, then the no. of marble
s
with A
at the
starting
a. 20 b. 30 c. 32

3. If a car starts from A towards B with some velocity due to some
problem in
the engine after travelling 30km. If the car goes with $\frac{4}{5}$ th of its
actual v
elocity the car reaches B 45min later to the actual time. If the car
engine
fails after travelling
45km, the car reaches the destination B 36min late to the actual time
, what i
s
the initial velocity of car and what is the distance between A and B i
n
km

ans) 20 & 130.

4. A person has Rs 100/- in his pocket, he can as 25 pencils or
15books. He kep
t
15% of the money for travelling expenses and purchased 5 pencils. So ho
w
many
books he can purchase with the remaining money.

5. ten questions on analogies.
ex: hammer : carpenter ::
knife : butcher.

6. The values of shares A, B and C from january to june are as follows.

month	A	B	C
JAN	30	60	80
FEB	35	65	85
MAR	45	75	65
APR	40	75	82
MAY	55	75	85
JUNE	50	75	80

- i) During this period which share has undergone max fluctuation?
- ii) In which month it is possible to buy B and C selling A?
- iii) In which month the share values are very low?
- iv) By purchasing one share of A and 4 each of B and C in the beginning of the period , to get max profit when this shares should be sold?
- v) ?

7. In a computer institute 9 languages can taught. The module is of 6 months duration and only six languages each of one month can be taught. In addition to

that BASIC is always there and should be in first month itself

word perfect is to be taught in the preceeding week of word star.

FORTRAN can not be taught until COBAL is coarsed prior to that

BINO, FIFO never be taught in single module

languages are BASIC, WORD STAR, WORD PERFECT, FORTRAN, COBAL, BINO, FIFO, L
OTUS, C

i. Of the following which module is possible based on above conditions.

ii) If word star is in 3rd month , what could be in 6th month.

iii) If COBAL is in the 2nd month and BINO in 6th month are there in addition t

o

the above condition, FORTRAN will be in which month.

8. In a class , except 18 all are above 50 years. 15 are below 50 years of age.

how many people are there

a) 30 b) 33 c) 36 d) none of these.

9. A square plot of some size , at four corners equal squares of some size are

cut and is formed as open box. If this open box carries 128ml of oil. What is

the size of the plate i.e. side

a.17 b.14 c.13

10. In a square , all the mid points are joined. the inner square is shaded. If

the area of the square is A, what is the shaded area?

11. two questions on basic angles i.e given a circle, a few chords or diameter is drawn etc.

12. $@(a,b) = (a+b)/2$
 $/(a,b) = a.b$
 $*(a,b) = ab$, if $a=1$, $b=2$ find
 i) $/(a, (@(a,b), *(a,b)))$
 ii)

13. $(x\#y) = x+y-xy$
 $(x*y) = (x+y)/2$

i) $(x\#y)\#(x*y) \< (x\#y)$, which of the below values of x, y will satisfy this equation

ii) $(a*b)\#(b*c) \< (a\#b)*(b*c)$, what values of a,b,c satisfy the above.

14. By using the data given below answer the following questions.

	B.tech	M.sc	M.A
male	20		
female			80
total	60		

some thing similar to that question.

i) 40% of females are B.Techs

ii) Half of the students are either from B.Techs of M.Sc

iii) ...

i. what is the no. of female B.techs

ii....

dont remember this question , just for an example this has been given

.

TISL(TATA-IBM) PAPER

Q9). what will be the result of executing following program

```
main
{
char *x="new";
char *y="dictionary";
char *t;
void swap (char * , char *);
```



```

swap (x,y);
printf(&quot;(%s, %s)&quot;;,x,y);

char *t;
t=x;
x=y;
y=t;
printf(&quot;-(%s, %s)&quot;;,x,y);
}
void swap (char *x,char *y)
{
char *t;
y=x;
x=y;
y=t;
}

```

- a) .(New,Dictionary)-(New,Dictionary)
 - b) .(Dictionary,New)-(New,Dictionary)
 - c) .(New,Dictionary)-(Dictionary,New)
 - d) .(Dictionary,New)-(Dictionary,New)
 - e) .None of the above
- (Ans will be b or e) check

Q10).If a directory contains public files (can be valied and used by any one) which should not be altered ,the most liberal permissions that can be given to the directory is

- a) 755
- b) 777
- c) 757
- d) 775

e)None of the above

(Ans a)

11) what would the following program results in

```

main()
{
char p[]=&quot;string&quot;;
char t;
int i,j;
for(i=0,j=strlen(p);i<j;i++)
{
t=p[i];
p[i]=p[j-i];
p[j-i]=t;
}
printf(&quot;%s&quot;;,p);
}

```

- a)will print:string
- b)will not print anything since p will be pointing to a null strin

g

- c)will print:gnirts
- d)will result in a complication error
- e)will print invallid characters(junk)
- (Ans will be b) check

12) After the following command is executed

```
$ ln    old    new
```

a listing is performed with the following output

```
$ ls -li
```

```
total 3
15768 -rw-rw-rw-  2 you 29 Sep 27 12:07 old
15768    " "      " " " "
" "    new
15274    " "      1 "  40 " "  09:34
veryold
```

which of the following is true

- a)old and new have same i-node number,2
- b) " " " " " "
- " , 15768
- c)old and new have nothing yo do with each other
- d)very old and new are linked
- e)very old and old are linked

(Ans is b)

13) What will be the result of executing the following statement

```
int i=10;
printf("%d %d %d",i,++i,i++);
```

- a).10 11 12
- b).12 11 10
- c).10 11 11
- d).result is OS dependent
- e).result is compiler dependent

(Ans is e)

14) What does extern means in a function declaration

- a)the funct has global scope
- b)the funct need not be defined\
- c)nothing really
- d)the funct has local scope only to the file it is defined in
- e)none of the above

(Ans will be c)

15) What will be result of the following program

```
main()
{
void f(int,int);
int i=10;
f(i,i++);
}
void f(int i,int j)
```

```

{
if(i>50)
return;
i+=j;
f(i,j);
printf(&quot;%d,&quot;,i);
}

```

- a) .85,53,32,21
 - b) 10,11,21,32,53
 - c) 21,32,53,85
 - d) 32,21,11,10
 - e) none of the above
- (Ans is e)

- 16). MS windows 3.1 is a
- a) operating system
 - b) Application
 - c) Programing language
 - d) database
 - e) shell

(Ans will be b)

- 17). MS Windows 3.1 supports which tyoe of multi-tasking?

- a) cycle
- b) executive
- c) preemptive
- d) Non-preemptive
- e) Manual

(Ans)

- 18) The commandln/bin/mail /usr/you/bin/m

- a) will not be executed because you are linking files across different file systems
- b) results ln /bin/main being the same file as /usr/you/bin/m
- c) results in 2 links to the file mail
- d) " " " " m
- e) none

(Ans will be b)

- 19) In a standerd directory lay out ,/etc is the directory where

- a) basic programs such as who and ed reside
- b) device related files reside
- c) various administrative files such as password file reside
- d) short-lived files created during program execution reside
- e) the C sub-routine library resides

(Ans is c)

- 20) The command echo *

- a) echoes all files in the current directory
- b) prints * on the screen
- c) is an invalid command
- d) is the same as the command echo*
- e) is the same as echo"*";

(Ans is a)

- 21) What will be the result of the following segment of the program

```
main()
{
char *s="hello world";
int i=7;
printf("%.7s",s);
}
```

- a) syntax error
- b) hello w
- c) Hello
- d) o world
- e) none

(Ans is b)

22) What will be the result of the following program

```
main()
{
int a,b;
printf("enter two numbers :");
scanf("%d%d",&a,&b);
printf("%d+%d=%d",a,b,a+b);
}
```

- a) will print the sum of the numbers entered
- b) syntax error during compilation
- c) will generate run time error /core dump
- d) will print the string "a+b = a+b" on the screen
- e) none of these

(Ans is c)

23) What is the size of 'q' in the following program?

```
union{
    int x;
    char y;
    struct {
        char x;
        char y;
        int xy;}p;
    }q;
```

- a) 11
- b) 6
- c) 4
- d) 5
- e) none

(Ans is b why because no of bytes for int =4 given in instructions)

24) Which message is displayed when a window is destroyed

- a) WM_CLOSE
- b) WM_DESTROY
- c) WM_NCDESTROY
- d) WM_POSTDESTROY
- E) NONE

(Ans is b)

25) Send Message and postmessage are

- a) send message puts the message in the message queue and results,

postmessage processes the message immediately

- b) Sendmessage processes the message immediately, postmessage puts the message in the queue and returns
- c) Both put the message in the message queue and returns
- d) Both process the message immediately
- e) None of the above

(Ans will be b check)

26) Which of the following message is used to limit the size of teh Window

- a) WM_SIZE
- b) WM_PAINT
- c) WM_GETMINMAXINFO
- d) WM_COMMAND
- e) WM_CREATE

(Ans is a)

27) until who | grep mary

do

sleep 60

done

- a) is syntactically incorrect
- b) waits 60 seconds irrespective of Mary being logged in or not
- c) waits until Marry is logged in
- d) waits till Mary exited
- e) None

(Ans is c)

28) The UNIX system call that transforms an executable binary file into a process is

- a) execl()
- b) execv()
- c) execl()
- d) execve()
- e) All of the above

(Ans will be e check)

29) Which of the following is true about fork()

- a) it transforms an executable binary file into a process that overlays the

process which made the fork() system call. NO new process is created.

- b) Causes the creation of a new process, the CHILD process, with a

new

process ID

- c) Causes the creation of a new process, the CHILD process ,with th

e

same

process ID as the parent

- d) fork() has nothing to do with processes

- e) fork() is not a system call

(Ans is b)

30) What do the following variable names represents?

sort register
volatile default

- a) short - is not a reserved keyword
- b) volatile & register - is not a reserved keyword
- c) all the above are keywords
- d) all are valid variable names
- e) default - is not a reserved keyword

(Ans is c)

31) What will be the result of the following program

```
main()
{
char *x="String";
char y[] = "add";
char *z;
z=(char *) malloc(sizeof(x)+sizeof(y)=1);
strcpy(z,y);
strcat(z,y);
printf("%s+%s=%s",y,x,z);
}
```

- a) Add+string=Add string
- b) syntax error during compilation
- c) run time error/core dump
- d) add+string=
- e) none

(Ans will be e consider cap&small letters)

32) What does the following expression means?

char *(*(*a[N])())();

- a) a pointer to a function returning array of n pointers to function

returnin

g

character pointers

- b) a function return array of N pointers to functions returning pointers to

characters

- c) an array of n pointers to function returning pointers to characters

- d) an array of n pointers to function returning pointers to functions returning pointers to characters

- e) none of the above

(ANS IS d)

33) Which of the following is not a GDI object

- a) HBRUSH
- b) HPEN
- c) HBITMAP
- d) HRGN
- e) HWND

(Ans is e)

34) Which of the following message is used to initialize the contents of a dialog

- a)WM_CREATE
- b)WM_SIZE
- c)WM_COMMAND
- d)WM_INITDIALOG
- e)none

(Ans will be d)

35)Interprocess communication in UNIX can be achieved using

- a)pipe
- b)Message
- c)Semaphores
- d)Shared Memory
- e)All of the above

(

Ans is e)

36) Which of the following is true

- a)UNIX is a time sharing multi-user OS
- b)UNIX has a device independent file system
- c)UNIX is full duplex
- d)UNIX has command interpreter
- e)All of the above

(Ans is e)

45Q). PS1 pwd

export PS1 results in

- a). your primary prompt being your current directory
- b). " " and secondary prompts being the current

dir

- c). " " prompt being your home dir
- d). " " and secondary prompts being the home di

r

- e). None of the above.

8Q). If you type in the command

nohup sort employees > list 2 > error out &
and log off ,the next time you log in . the output
will be

- a). in a file called list and the error will de typed in
a file error out
- b). there will be no file called list or error out
- c). error will be logged in a file called list and o/p
will be in error out
- d). you will not be allowed to log in
- e). none of the above

7Q). In UNIX a files i-node

- a)is a data structure that defines all specifications
of a file like the file size ,number of lines to a
file ,permissions etc.
- b).----

c). - - - -

d). - - -

(ans is -----(a))

44Q). The UNIX shell is....

- a).does not come with the rest of the system
- b).forms the interface between the user and the kernal
- c) does not give any scope for programming
- d) deos not allow calling one program from with in another
- e) all of the above

(ans is (b))

48Q).enum number { a=-1, b= 4,c,d,e}

what is the value of e ?

7,4,5,15,3

(ans is 7) check again

3Q).The very first process created by the kernal that runs till the kernal process is haltes is

- a)init
- b)getty
- c)
- d)
- e)none

(Ans is a)

47 Q) Result of the following program is

```
main()
{
  int i=0;
  for(i=0;i<20;i++)
  {
    switch(i)
    {
      case 0:i+=5;
      case 1:i+=2;
      case 5:i+=5;
      default i+=4;
      break;}
    printf("&quot;%d,&quot;,i);
  }
}
```

a)0,5,9,13,17

b)5,9,13,17

c)12,17,22

d)16,21

e)syntax error

(Ans is d)

1 Q) What is the result

```
main()
{
  char c=-64;
  int i=-32
  unsigned int u =-16;
```



```

    if(c>i){
    printf(&quot;pass1,&quot;);
    if(c<u)
    printf(&quot;pass2&quot;);
    else
    printf(&quot;Fail2&quot;);}
    else
    printf(&quot;Fail1);
    if(i<u)
    printf(&quot;pass2&quot;);
    else
    printf(&quot;Fail2&quot;);
}

```

- a) Pass1, Pass2
 - b) Pass1, Fail2
 - c) Fail1, Pass2
 - d) Fail1, Fail2
 - e) none
- (Ans is c)

2) In the process table entry for the kernel process, the process id value is

- a) 0 b) 1 c) 2 d) 255 e) it does not have a process table entry

Ans) a

4) Which of the following API is used to hide a window

- a) ShowWindow
- b) EnableWindow
- c) MoveWindow
- d) SetWindowPlacement
- e) None of the above

Ans) a

5) what will the following program do?

```

void main()
{
    int i;
    char a[]=&quot;String&quot;;
    char *p=&quot;New String&quot;;
    char *Temp;
    Temp=a;
    a=malloc(strlen(p) + 1);
    strcpy(a,p);
    p = malloc(strlen(Temp) + 1);
    strcpy(p,Temp);
    printf(&quot;(%s, %s)&quot;,a,p);
    free(p);

    free(a);
}

```

//Line no 9//

//Line no 15//

- a) Swap contents of p & a and print:(New string, string)
- b) Generate compilation error in line number 8
- c) Generate compilation error in line number 5
- d) Generate compilation error in line number 7
- e) Generate compilation error in line number 1

Ans) b

6) In the following code segment what will be the result of the function, value of x , value of y

```

{
    unsigned int x=-1;
    int y;
    y = ~0;
    if(x == y)
        printf(&"same&");
    else
        printf(&"not same&");
}

```

- a) same, MAXINT, -1
- b) not same, MAXINT, -MAXINT
- c) same , MAXUNIT, -1
- d) same, MAXUNIT, MAXUNIT
- e) not same, MAXINT, MAXUNIT

Ans) a

37) PATH = /bin : /usr : /yourhome

The file /bin/calender has the following line in it

cal 10 1997

The file /yourhome/calender has the following line in it

cal 5 1997

If the current directory is /yourhome and calender is executed

- a) The calendar for May 1997 will be printed on screen
- b) The calendar for Oct 1997 will be printed on screen
- c) The calendar for the current month(whatever it is) will be printed
- d) Nothing will get printed on screen
- e) An error message will be printed

38) what will be the result of the following program ?

```

char *gxxx()
{
    static char xxx[1024];
    return xxx;
}

```

```

main()
{
    char *g="string";
    strcpy(gxxx(),g);

    g = gxxx();
    strcpy(g,"oldstring");
    printf("The string is : %s",gxxx());
}

```

- a) The string is : string
- b) The string is :Oldstring
- c) Run time error/Core dump
- d) Syntax error during compilation
- e) None of these

Ans) b

39) What will be result of the following program?

```

void myalloc(char *x, int n)
{
    x= (char *)malloc(n*sizeof(char));
    memset(x,\0,n*sizeof(char));
}
main()
{
    char *g="String";
    myalloc(g,20);
    strcpy(g,"Oldstring");
    printf("The string is %s",g);
}

```

- a) The string is : String
- b) Run time error/Core dump
- c) The string is : Oldstring
- d) Syntax error during compilation
- e) None of these

Ans) c (check it)

40) which of the following function is used to repaint a window immediately

- a) SendMessage(hWnd,WM_PAINT,.....)
- b) InvalidateRect(.....)
- c) MoveWindow
- d) WM_COPY
- e) None

41) which function is the entry point for a DLL in MS Windows 3.1

- a) main
- b) Winmain
- c) Dllmain
- d) Libmain
- e) None

Ans) b

42) The standard source for standard input , standard output and standard error

is

- a) the terminal
- b) /dev/null
- c) /usr/you/input, /usr/you/output/, /usr/you/error respectively
- d) NOne

Ans) a

43) What will be the result of the following program?

```
main()
{
    char p[]="String";
    int x=0;

    if(p=="String")
    {
        printf("Pass 1");
        if(p[sizeof(p)-2]=='g')
            printf("Pass 2");
        else
            printf("Fail 2");
    }
    else
    {
        printf("Fail 1");
        if(p[sizeof(p)-2]=='g')
            printf("Pass 2");
        else
            printf("Fail 2");
    }
}
```

- a) Pass 1, Pass 2
- b) Fail 1, Fail 2
- c) Pass 1, Fail 2
- d) Fail 1, Pass 2
- e) syntax error during compilation

46) Which of the choices is true for the mentioned declaration ?

```
const char *p;
and
char * const p;
```

- a) You can't change the character in both
- b) First : You can't change the character & Second : You can;t change the pointer
- c) You can't change the pointer in both
- d) First : You can't change the pointer &

Second : You can't change the character

e) None

Ans) b (check it)

49) The redirection operators > and >>;

a) do the same function

b) differ : > overwrites, while >> appends

c) differ : > is used for input while >> is used for output

d) differ : > write to any file while >> write only to standard output

e) None of these

Ans) b

50) The command

grep first second third /usr/you/myfile

a) prints lines containing the words first, second or third from the

file

/usr/you/myfile

b) searches for lines containing the pattern first in the files second, third

and /usr/you/myfile and prints them

c) searches the files /usr/you/myfile and third for lines containing

the word

s

first or second and prints them

d) replaces the word first with the word second in the files third and

/usr/you/myfile

e) None of the above

Ans) b

APTITUDE TEST

Missing letter

1).eefgghii- (Ans j)

2)

3)defdefghi- (Ans g)

4)cdxyzfghxyz- (Ans i)

5)defdegde- (h)

6)abczabcyabc- (x)

7)fghibjkb- (l)

8)- - - - - (Ans is r)

- ```

9) aarbsctarb- (s)
10) bccdeefg- (g)
11) efhikl- (n)
12) abccdeffg- (h)
13) amnbopc- (q)
14) tttssrqqqp- (p)
15) ddfhfhjj- (l)
16) mnmnklopokl- (q)
17) cddeeefff- (f)
18) gfed- (c)
19) dfhjl- (n)
20) abcijdefij (g)
21) efgefghefghi- (e)
22) bcbdedfgfhi- (h)
23) aababccdc- (d)
24) aibcidef- (i)
25) cehl- (q)
26) abdehimn- (s) check again
27) becfdge- (h)
28) agbhc- (i)
29) adhko- (r)
30) efghjklno- (q)
31) aedhg- (k)
32) aeibf- (j)
33) zdwgt- (J)
34) zeyijxg- () find
35) cqreuvvg- (y)
36) ksjtuih- (v)
37) rsjtuhvw- (f)
38) ieajfbk- (g)
39) hebifej- (g)
40) hjlmiel- (h)

```

TOTAL 60 QUE'S 25-PROBLEMS & 35 FIGURES (figure series, we have to find next coming figure)

HERE 13 PROB'S ARE THERS.REMAINING ALSO ALMOST LIKE THIS .

- 1) A boy multiplied a number with 10 and got 100, instead of dividing it . If he divided it what would be the answer?  
(Ans is 1)
- 2) If 12 shell cup board requires 18ft of wall space then  
30        "        "        "        "        how much wall  
space?  
(Ans is 45)
- 3) The average salary of three employees is 95Rs. per week.  
If one employee earns 115 and other earns 65 rupees.

how much will third be earn?

(Ans is 105Rs)

- 4) A company installed 36 punching machines at the beginning of the year. In the spring they installed 9 additional m/c's and then discontinued 18 in the fall. How many were still installed at the end of the year?

(Ans is 9) check

- 5) During a given week a programmer spends  $\frac{1}{4}$  of his time preparing charts,  $\frac{3}{8}$  of his time for coding, rest of his time for debugging the programs. If he had 48 hrs during the week how many hours did he spend debugging the program.

(Ans is 18hrs)

- 6) A 16 story building has 12000 sqft on each floor. Company A rents 7 floors and company B rents 4 floors. What is the number of square feet of unrented floor space?

(Ans is 60000 sqft)

- 7) A man owns  $\frac{2}{3}$  of a computer service bureau business and sells  $\frac{3}{4}$  of his share for \$75000. What is the value of the business.

(Ans is 150,000)

- 8) A computer printer produces 176400 lines in a given day. If the printer was in operation for 7hrs during the day how many lines did it print per minute?

(Ans is 420)

- 9) From its total income a company spent \$20000 for advertising half of the remainder on salaries and had \$6000 left. What was the total income?

(Ans is \$32000)

- 10) In a certain company 20% of the men and 40% of the women attended the annual company picnic. If 35% of all the employees are men. What % of all the employees went to the picnic?

(Ans is 33%)

- 11) The dimensions of certain IBM m/c are  $48 \times 30$ . If the size of the m/c is increased proportionally until the sum of its dimensions equals to 156. What will be the increase in the shortest side?

(Ans is 30)

- 12) If a card punch operator can process 80 cards in half an hour. How many cards can this process in 7hr30min?

(Ans is 1200)

- 13) In a computer tape library there are two racks with 40 tapes per rack. In a given day 30 tapes are in use. What fraction remains in the rack?

(Ans is  $\frac{5}{8}$ )

THIS WE WERE WRITTEN AFTER ATTEMPTING EXAM HERE THEY HAS TAKEN THREE PEOPLE FROM M.TECH (ONE FROM METALLURGY, ONE FROM MECHANICAL. ONE

FROM EE)

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try hardly and you might be get selected.

## I2 TECHNOLOGIES

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This paper mainly consists of two parts, one hour each. First part consists of mainly reasoning q's and artificial intelligence q's. Second paper consists of programming skills, includes some tough q's (CS standard) and other q's are related to 'C' .

Here I am giving some Q's.

Part .1

time - 1 hr.

Here in the reasoning q's they have given some passages and asked find best assumptions, asked find better conclusion drawn from the passage. They are all multiple choice q's. This paper is relatively easy. But you have to read and understand q's as quickly as possible . Time is sufficient.

part - 2.

time- 1 hr

sec-1 : 20 q's 60 marks ( one -ve mark for the wrong ans).

1. convert 0.9375 in to binary form. ( prepare these conversions well).

2. parameters are passed to functions only by value (y/n).

3. if `a&b` are int arrays then the expression `a==b` can never evaluate to true.



(y/n) .

4. The expression  $(a+b)*c*d)-e$  is represented as an exp.tree. the tree is threaded for inorder traversal left to right. What