

1. In 1978, a kg of paper was sold at Rs25/-.

If the paper rate increases at 1.5% more than the inflation rate which is 6.5% a year,

then what will be the cost of a kg of paper after 2 years?

(a) 29.12

(b) 29.72

? 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 each of them already have.

Then, B gave C and A the same number of marbles they already have.

Then C gave A and B the same number of marbles they already have.

At the end A,B,and C have equal number of marbles.

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

Then the number of marbles B have at the end

(a) $2(x-y-z)$

(b) $4(x-y-z)$

? $2(3y-x-z)$

(d) $x + y - z$

Ans. ?

(ii) If the total number of marbles are 72, then the number of marbles with

A at the

starting

(a) 20

(b) 30

? 32

(d) 39

Ans. (d)

3. If a car starts from A towards B with some velocity.

Due to some problem in the engine after travelling 30km, the car goes with

$\frac{4}{5}$ th of its

actual velocity

The car reaches B 45 min 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. 25 & 105

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

eg: chief : tribe :: governor : state

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7. In a computer institute 9 languages can be taught.

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ii) If COBAL is in the 2nd month and BINO in 6th month. FORTRAN will be taught 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

? 36

(d) none of these.

Ans. (d)

9. A square plate of some size is cut at four corners. Equal squares of the same size are

cut and is formed as open box.

If this open box carries 128 ml of oil. What is the size of the side of the plate?

(a) 17

(b) 14

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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 area of the shaded area?

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

etc.

12. If the follwoing statements are given

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

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

$$* (a, b) = ab$$

If $a=1$, $b=2$ then find

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

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

13. If the follwoing statements are given

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

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

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

ii) Find the values of x, y will satisfy this equation $(a * b) \# (b * c) <$

$$(a \# b) * (b * c)$$

=====

1.

E D C B A

C A D E B

A D B C E

B E D A C

D C A E B

Start at the fourth letter of Column 5 and follow the letters around the outside of the pattern in a clockwise

direction. What is the second letter between the second E and the second B you come to?

2.

A B 2 C 3

1 1 B 3 D

A 1 B C 4

5 A 5 2 B

E 5 D 2 C

In the row that has more letters than numbers, in which the numbers are separated by only one letter, and in which the numbers sum to less than the sum of the numbers in the second column, which letter comes just before the second number, counting from right to left?

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4.

If a salesman's average is a new order every other week, he will break the office record of the year. However, after 28 weeks, he is six orders behind schedule. In what proportion of the remaining weeks does he have to obtain a new order to break the record?

5.

在房里有三盏灯, 房外有三个开关, 在房外看不见房内的情况, 你只能进门一次, 你用什么方法来区分那个开关控制那一盏灯.

6.

一个粗细均匀的长直管子，两端开口，里面有 4 个白球和 4 个黑球，球的直径、两端开口的直径等于管子的内径，现在白球和黑球的排列是 wwwbbbb，要求不取出任何一个球，使得排列变为 bbwwwwbb。

7.

一只蜗牛从井底爬到井口，每天白天蜗牛要睡觉，晚上才出来活动，一个晚上蜗牛可以向上爬 3 尺，但是白天睡觉的时候会往下滑 2 尺，井深 10 尺，问蜗牛几天可以爬出来？

8. 在一个平面上画 1999 条直线最多能将这一平面划分成多少个部分？

9. 在太平洋的一个小岛上生活着土人，他们不愿意被外人打扰，一天，一个探险家到了岛上，被土人抓住，土人的祭司告诉他，你临死前还可以有一个机会留下一句话，如果这句话是真的，你将被烧死，是假的，你将被五马分尸，可怜的探险家如何才能活下来？

10. 怎样种四棵树使得任意两棵树的距离相等。

11. 27 个小运动员在参加完比赛后，口渴难耐，去小店买饮料，饮料店搞促销，凭三个空瓶可以再换一瓶，他们最少买多少瓶饮料才能保证一人一瓶？

12. 有一座山，山上有座庙，只有一条路可以从山上的庙到山脚，每周一早上 8 点，有一个聪明的小和尚去山下化缘，周二早上 8 点从山脚回山上的庙里，小和尚的上下山的速度是任意的，在每个往返中，他总是能在周一和周二的同一钟点到达山路上的同一点。例如，有一次他发现星期一的 8 点 30 和星期二的 8 点 30 他都到了山路靠山脚的 $\frac{3}{4}$ 的地方，问这是为什么？

13. 有两根不均匀分布的香，每根香烧完的时间是一个小时，你能用什么方法来确定一段 15 分钟的时间？

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

Month

A

B

C

January

30

60

80

February

35

65

85

March

45

75

65

April

40

75

82

May

55

75

85

June

50

75

80

- i) During this period which share has undergone maximum 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,
when should these be sold to get maximum profit?

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

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

16. In UNIX a file's i-node?

Ans. Is a data structure that defines all specifications of a file like the file size,

number of lines to a file, permissions etc.

17. The UNIX shell

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

Ans. (b)

18. enum number { a=-1, b= 4, c, d, e}

What is the value of e ?

- (a) 7
- (b) 4
- (c) 5

(d) 15

(e) 3

19. The very first process created by the kernel that runs till the kernel process is halts is

a) init

b) getty

c) both (a) and (b)

d) none of these

Ans. (a)

20. Output 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("%d, ", i);
    }
}
```

a) 0, 5, 9, 13, 17

b) 5, 9, 13, 17

c) 12, 17, 22

d) 16, 21

e) Syntax error

Ans. (d)

21. What is the output in the following program

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

```

if(c>i)

{printf("pass1,");

if(c<u)

printf("pass2");

else

printf("Fail2");

}

else

printf("Fail1");

if(i<u)

printf("pass2");

else

printf("Fail2")

}

```

- a) Pass1, Pass2
- b) Pass1, Fail2
- c) Fail1, Pass2
- d) Fail1, Fail2
- e) None of these

Ans. (c)

22. 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)

23. 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)

24. 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 number:9//
    p = malloc(strlen(Temp) + 1);
    strcpy(p,Temp);
    printf("(%s, %s)", a,p);
    free(p);
    free(a);
} //Line number 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)

25. 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)

26. 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

27. 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)

28. 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

29. 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

30. 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)

31. 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)

32. What will be the result of the following program?

```
main()

{char p[]="String";

int x=0;

if(p=="String")

{printf("🤔ass 1");

if(p[sizeof(p)-2]=='g')

printf("🤔ass 2");

else

printf("Fail 2");

}

else

{

printf("Fail 1");

if(p[sizeof(p)-2]=='g')

printf("🤔ass 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

33. 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 chanage the character
- e) None

34. 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)

35. 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 words 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)

=====

1. 有 3 台复印机 (copier)，平均每台每周工作 42 小时，每台每周最少工作 35 小时，问一台复印机每周最多会工作多少小时？

$$42*3 - 35*2 = 56$$

2. 在一个长 11 meters，宽 6 meters 的房间里，铺上 10 centimeters 厚的水泥，问需要多少水泥？

$$11*6*0.1=6.6 \text{ cubic meters}$$

3. 某公司有两座办公楼，一天，第一座楼 20% 的复印机和第二座楼 40% 的复印机需要进行维护，如果第一座楼拥有公司 60% 的复印机，问这天在维护的复印机是多少？

$$20\% * 60\% + 40\% * (1 - 60\%) = 28\%$$

4. 要在一个接待室(reception room)里铺瓷砖，接待室的长 18 meters，宽 12 meters，同时要修一条从大厅(hall)到楼梯(stair way)的通道（不铺瓷砖）占地 50 square meters，允许铺设时有 35% 的浪费(wastage)，1 平方米瓷砖的价格是 10 美元，问大约(approximately)要花多少钱？

$$(18 * 12 - 50) * 135\% * 10 = 2,200$$

5. 某公司要做一个车辆更新，有 2 种车型，一种是 X(忘了，用 X 代替)，一种是 van，新 X 每 liter 油走 20 公里，新 van 每 liter 油走 15 公里，旧 X 每 liter 油走 15 公里，旧 van 每 liter 油走 12 公里。现在要开 15000 公里，其中有 60% 由 van 来承担，问更新后将节省多少油？

$$(15000 * 60\% / 12 + 15000 * 40\% / 15) - (15000 * 60\% / 15 + 15000 * 40\% / 20) = 250$$

6. 有 2 个行政打字员(administrative typist)，A 的速度是 B 的 $1 \frac{1}{4}$ times，现在要打 72 页文件，问快的那个人打了多少页？

$$72 * \frac{5}{9} = 40$$

7. 有一个呼叫中心，星期二的 calls 比星期一的 $\frac{1}{2}$ 还多 $\frac{1}{3}$ ，星期一和星期二的 calls 的和是 120，问星期二的 calls 是多少？

$$48$$

8. 有一个软件公司， $\frac{1}{2}$ 的人是系统分析员， $\frac{2}{5}$ 的人是软件工程师，有 $\frac{1}{4}$ 的人两者都是，问有多少人两者都不是？

$$1 - \frac{1}{2} - \frac{2}{5} + \frac{1}{4} = 0.35$$

9. 有一个 crate 要做等比例(proportionally)的缩放，为了能够便于运输(shipment)，crate 的尺度(dimension)是 72, 96, 48，如果缩放到三个尺度的和是 200，问最长的那个尺度要缩多少？

$$96 * (1 - 200 / 216) = 64 / 9 = 7.1$$

10. 有一个矩形，长是宽的 $1 \frac{1}{3}$ times，如果把每边增加 1，面积将增加 85，问长是多少？

$$48$$

11. 有一个 printer，一小时能打 12,000 页，早上 8:30 开始打印，中途被打断 2 次，每次 5 分钟，13:15 打完，问总共打了多少页？

$$55,000$$