

CTS Placement Paper 2009

1. consider the following program listing

```
#include<stdio.h>

main()

{

int a[3];

int *I;

a[0]=100;a[1]=200;a[2]=300;

I=a;

Printf(“%d\n”, ++*I);

Printf(“%d\n”, *++I);

Printf(“%d\n”, (*I)--);

Printf(“%d\n”, *I);

}
```

what is the o/p

- a. 101,200,200,199
- b. 200,201,201,100
- c. 101,200,199,199
- d. 200,300,200,100

2. what will be the o/p

```
#include<stdio.h>

main()
```

```

{
inta[3];

int *x;

int*y;

a[0]=0;a[1]=1;a[2]=2;

x=a++;

y=a;

printf(“%d %d\n”, x,(++y));

}

```

- a. 0,1
- b. 1,1
- c. error
- d. 1,2

Questions 3 - 7

3. A secret can be told only 2 persons in 5 minutes .the same person tells to 2 more persons and so on . How long will take to tell it to 768 persons ?

- a) 47.5 min b)50 min c) 500 min d)49 min

Ans: 47.5 min

4. When I was married 10 years ago my wife is the 6th member of the family. Today my father died and a baby born to me.The average age of my family during my marriage is same as today. What is the age of Father when he died?

Ans: 70.

5. A son and father goes for boating in river upstream . After rowing for 1 mile son notices the hat of his father falling in the river. After 5 min. he tells his father that his hat has fallen. So they turn round and are able to pick the hat at the point from where they

began boating after 5min. Tell the speed of river?

Ans: 6 miles/hr

6. There are three departments having students 64,58,24 .In an exam they have to be seated in rooms such that each room has equal number of students and each room has students of one type only (No mixing of departments. Find the minimum number rooms required ?

Ans : 73

7. Argentina had football team of 22 player of which captain is from Brazilian team and goalki from European team. For remaining player they have picked 6 from Argentinean and 14 from European. Now for a team of 11 they must have goalki and captain so out of 9 now they plan to select 3 from Argentinean and 6 from European. Find out number of methods available for it.

Ans : 160600(check out for right no. $6C3 * 14C6$)

Directions for Questions 8-12 :Convert the given binary numbers.

8. $(11111011)_2 = ()_8$

Ans: (373)₈

9. $(11011110110010101101)_2 = ()_{16}$

Ans: (DECAD)₁₆

10. $(11010101)_2 = ()_{10}$

Ans: (213)₁₀

11. $(11100111)_2 = ()_8$

Ans: (347)₈

12. $(1100010101010010001)_2 = ()_8$

Ans: (1425221)₈

Questions 13-17 : A cube painted red on two adjacent faces and black on the faces opposite to the red faces and green on the remaining faces is cut into sixty-four smaller cubes of equal size.

13. How many cubes are there which have no face painted ?

A) 0 B) 4 C) 8 D)6

Ans:C

14. How many cubes have only one face painted ?

A) 8 B) 16 C) 24 D)32

Ans:C

15. How many cubes have less than three faces painted ?

A) 80 B) 24 C) 28 D)48

Ans:D

16. How many cubes are there with three faces painted ?

A) 4 B) 8 C) 16 D)24

Ans:B

17. How many cubes have one face green and one of the adjacent faces black or red ?

A) 8 B) 16 C) 24 D)28

Ans:C

18. A starts from a place at 11.00 A.M. and travels at a speed of 4 kmph, B starts at 1.00 P.M. and travels with speeds of 1 kmph for 1 hour, 2 kmph for the next 1 hour, 3 kmph for the next 1 hour and so on. At what time will B catch up with A?

a) 9.24 b)9.32 c)9.48 d)none

19. The average temperature of Monday to Wednesday was 37°C and of Tuesday to Thursday was 34°C. If the temperature on Thursday was $\frac{4}{5}$ th of that of Monday, the temperature on Thursday was

a)36.5°C b)36°C c)35.5°C d)34°C

20. Swetha and Chaitanya went to a bookshop. Swetha purchased 5 pens, 3 note books and 9 pencils and used up all her money. Chaitanya purchased 6 pens, 6 note books and 18 pencils and paid 50% more than what Swetha paid. What % of Swetha's money was spent on pens?

a) 12.5 b) 62.5 c) 75 d) cant be determined.