

1. One of the following is my secret word: AIM DUE MOD OAT TIE. With the list in front of you, if I were to tell you any one of my secret word, then you would be able to tell me the number of vowels in my secret word. Which is my secret word?

Ans. TIE

2. In the following figure: A B C

D  
E F G  
H  
I

Each of the digits 1, 2, 3, 4, 5, 6, 7, 8, and 9 is:

a) Represented by a different letter in the figure above.

b) Positioned in the figure above so that each of  $A + B + C$ ,  $C + D + E$ ,  $E + F + G$ , and  $G + H + I$  is equal to 13.

Which digit does E represent?

Ans. E is 4

3. One of Mr. Horton, his wife, their son, and Mr. Horton's mother is a doctor and another is a lawyer.

a) If the doctor is younger than the lawyer, then the doctor and the lawyer are not blood relatives.

b) If the doctor is a woman, then the doctor and the lawyer are blood relatives.

c) If the lawyer is a man, then the doctor is a man.

Whose occupation you know?

Ans. Mr. Horton: he is the doctor.

4. Here is a picture of two cubes:



a) The two cubes are exactly alike.

b) The hidden faces indicated by the dots have the same alphabet on them.

Which alphabet-q, r, w, or k is on the faces indicated by the dots?

Ans. q

5. In the following figure:

A            D  
B    G    E  
C            F

Each of the seven digits from 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 is:

a) Represented by a different letter in the figure above.

b) Positioned in the figure above so that  $A*B*C$ ,  $B*G*E$ , and  $D*E*F$  are equal.

Which digit does G represent?

Ans. G represents the digit 2.

6. Mr. and Mrs. Aye and Mr. and Mrs. Bee competed in a chess tournament. Of the three games played:

a) In only the first game were the two players married to each other.

- b) The men won two games and the women won one game.
- c) The Ayes won more games than the Bees.
- d) Anyone who lost game did not play the subsequent game.

Who did not lose a game?

**Ans. Mrs. Bee did not lose a game.**

7. Three piles of chips--pile I consists one chip, pile II consists of chips, and pile III consists of three chips--are to be used in game played by Anita and Brinda. The game requires:

- a) That each player in turn take only one chip or all chips from just one pile.
- b) That the player who has to take the last chip loses.
- c) That Anita now have her turn.

From which pile should Anita draw in order to win?

**Ans. Pile II**

8. Of Abdul, Binoy, and Chandini:

a) Each member belongs to the Tee family whose members always tell the truth or to the El family whose members always lie.

b) Abdul says "Either I belong or Binoy belongs to a different family from the other two."

Whose family name do you know?

**Ans. Binoy's family--El.**

## **Section B**

C programs are asked in this section

1. Write a program to insert a node in a sorted linked list.
2. Write a program to implement the Fibinocci series.
3. Write a program to concatenate two circular linked lists into a single circular list.
4. A function even\_odd\_difference() passes the array of elements. Write a program to calculate the difference of the two sums of which one sum adds the elements of odd ones and another adds the elements of even ones.
5. Write a program to reverse a linked list.

## **Section C**

Questions on C++ are asked here

1. Base class has some virtual method and derived class has a method with the same name. If we initialize the base class pointer with derived object; calling of that virtual method will result in which method being called?

- a. Base method
- b. *Derived method.*
- c. Error
- d. None of these

Almost all questions are of this kind. Go through virtual functions concepts in C++ and how the pointers to functions would be handled.