# ECOSMOB TECHNOLOGIES PVT LTD, AHMEDABAD
## VOIP TRAINEE WRITTEN TEST - 2020

Instructions:
1. You can write programs in any programming language (No Language Barrier).
2. Give your best for each question, your performance will be measured on how you solve the problems instead of how many questions you attempt.
3. Try to handle all the possible scenarios in your program.

**Programming Test :**

1. Write a program to print following pattern
   A
   B B
   C C C
   D D D D
   E E E E E

2. Write a code as per following.
   Enter a number in float, round that number at the hundredth position.
   **Eg:** if entered number is 2.210 then output must be 2.21,
        if entered number is 5.712 then output must be 5.72,
        if entered number is 9.268 then output must be 9.27.

3. What is the significance of Private IPs? Write a program that identify the IP address is private or public ?
   [ **Private IPs Range:**
   **\* 10.0.0.0 to 10.255.255.255**
   **\* 172.16.0.0 to 172.31.255.255**
   **\* 192.168.0.0 to 192.168.255.255** ].

4. Create an Employee Attendance system There should be entry and exit machine. Each time we need to maintain the entry and calculate the in time. (Break should not be considered in effective hours).
   User Inputs should be 1. Employee Entry 2. In 3. Out 4. Logs 5. Gross Hours and Effective Hours 6. Employee List.

   1. Employee Entry.
      There should be two things in Employee List 1) Employee Number which should be auto incremented and starts with 1. 2) Employee Name.
   2. In
      You have to ask the Employee Name or No. to log the IN event.
   3. Out
      Same as In
   4. Logs
      You have to ask Employee Name or No. to Display the Logs. Logs have Each an every Events in Pair like IN - OUT time.
   5. Gross and Effective Hours
      You should Display The Gross and Effective Hours(Which should be in HH:MM format).
      Gross Hours:  Hours between Latest OUT event and First IN event time.
      Effective Hours: Gross Hours - Break Hours.
   6. List Employees
      List all the employees details like Employee Name and Number.

5. We have car parking space, we want to create a status board which always shows the status of the parking status. So we have some kind of sensors to detect the car.

   Write a program which ask the event option for car IN, car OUT and Status. Follow the below instruction for action on each event.
   1. Car IN - Assign a vacant place to the new car.(If there is no car space remaining then prompt message "No Space")
   2. Car OUT - Ask the Position of the car like 13 that means 3rd column of the 1st row. So now the position is vacant now.(If there is no car parked on the position which is entered then Prompt message "Already Vacant").
   3. Status - You have to print the below pattern.

```
      0    1    2    3    4    5
  0   *    *    *    *    *    *
  1   *    0    *    *    *    *
  2   *    0    *    *    *    *
```

   * - Filled 0 - Available.

## Linux Commands Test :

1. Which command is used to find the disk space in system?
2. What does file permission 764 means?
3. Write any 5 vim editor commands.
4. Write command to change the owner of any file.
5. Write a full command used to copy data from our system to remote system?

## OOPS Concepts Test :

1. Write basic concepts of OOPS?
2. What is the default access specifier in a class definition?
3. What is the difference between structure and a class?
4. What are the various types of constructors with example?
5. What is Inheritance? Explain with an example.

## Quantitative Test :

1. In a large retail store employing 556 personnel, approximately 56% are female. Of the female employees, approximately 62% are aged between 48 and 60. How many employees are female and aged between 48 and 60 ?
    A. 255
    B. 193
    C. 365
    D. 312

2. In a two-digit number, the digit in the unit's place is more than twice the digit in ten's place by 1. If the digits in the unit's place and the ten's place are interchanged, difference between the newly formed number and the original number is less than the original number by 1. What is the original number ?
    A. 35
    B. 36
    C. 37
    D. 39

3. These questions are based on the following information.

( I ) 'A * B' means 'A is father of B'

( II ) 'A – B' means 'A is sister of B'

( III ) 'A + B' means 'A is mother of B'

( IV ) 'A/B' means 'A is sister of B'

In the expression D + F * O / P, how is O related to D?

    A. Grand-Daughter
    B. Son
    C. Grand-Son
    D. Daughter

4. 2, 12, 36, 80, 150,..
    A. 250
    B. 252

C. 276
D. 300

5. Select the right option from the given alternatives Introducing Sarita, Meena, said, "She is the only daughter of my father's only daughter". How is Meena related to Sarita?
   A. Niece
   B. Cousin
   C. Aunt
   D. None of These