# INDIAN SCHOOL SOHAR
## UNIT TEST (2017-2018)
## INFORMATICS PRACTICES

**Class: XI**                                                                                                  **Marks: 50**

**Date: 17-05-17**                                                                                        **Time: 2 hours**

**Instructions:**

*a.* *All the questions are compulsory.*

*b.* *Answer the questions after carefully reading the text.*

1. **Answer the following questions:**

   a) What is SQL? What are the classifications of SQL commands?                                        2

   b) What is the purpose of using MySQL?                                                               1

   c) Write any four advantages of DBMS.                                                                2

   d) Define the Alternate key and Candidate key with suitable examples.                                2

   e) What is the degree and cardinality of a relation having 6 rows and 4 columns?                     1

   f) Categorize the following commands under DDL and DML:                                              2

   DELETE,DROP,TRUNCATE,SELECT ,UPDATE,ALTER,CREATE,INSERT

   g) Which function is used for displaying ,

   i) Current date and time        ii) Name of weekday.                                                 2

   h) Which comparison operator is used for comparing                                                   2

   i) Patterns                        ii) List of values

   i) What is a Column alias? How is it useful?                                                         2

   j) Differentiate between LTRIM and RTRIM.                                                            2

   k) What is NULL? What happens when you perform arithmetic calculations on NULL value?               2


2. Write SQL Commands for the following on the basis of information given below:

   **Teacher:** Table

   | No | Tname | Age | Department | DOJ | Salary | Sex | Grade |
   |----|-------|-----|------------|-----|--------|-----|-------|
   | 1 | Nita | 40 | Physics | Null | 12000 | F | A |
   | 2 | Rishab | 45 | Computer Sc | 24/03/98 | 20000 | M | B |
   | 3 | Swetha | 30 | Chemistry | 12/12/96 | 15000 | F | A |
   | 4 | Anand | 35 | Null | 05/09/97 | 40000 | M | B |
   | 5 | Dimple | 25 | Computer Sc | 27/06/98 | 35000 | F | A |
   | 6 | Arvind | 50 | Mathematics | 31/07/97 | 45000 | M | B |
   | 7 | Jitin | 29 | Chemistry | 02/02/99 | 30000 | M | C |

   a) Show details of mathematics and chemistry Teachers with their salary in ascending order and age
      in descending order.                                        .                                     1

   b) List the name and salary of non-mathematics Teachers whose salary is less than 35000.             1

   c) List the various departments available.                                                          1

   d) List the name in uppercase and department in lowercase of all teachers.                          1

   e) List the no, name, age and department of teachers whose department is unknown.                    1

   f) List the department of female teachers who have minimum 5 characters in their names.              1

g)  List the details of teachers whose salary is in range 20000 to 30000 sorted by date of join.  1

h)  Display Name and Position of 'i' in names of all teachers.  1

i)  List the salary of teachers who have not chosen physics and mathematics as the subject.  1

j)  List the no, name and grade of teachers whose department starts with C or M.  1

k)  List the name and date of join of all A grade teachers (if date of join is not mentioned, replace with not-given).  1

l)  Display 1$^{st}$ three characters of names in uppercase joined with first four characters of department for all teachers.  1

m)  Display name, department name and bonus (assume bonus is 20% of salary) of all teachers.  1

n)  Remove the leading and trailing spaces of department of all male teachers aged above 40.  1

o)  List the details of male teachers joined before 1998 sorted by age in descending order.  1

p)  Write a query which displays the month of joining and length of teacher's name.  1

q)  Display 4 characters extracted from 5$^{th}$ right character onwards from the department name.  1

r)  List the details of teachers whose age is 25, 35 and 45 sorted by name in descending order.  1

s)  List the name,department name and salary of chemistry teachers whose grade is either A or B.  1

t)  Display a Report as:  1

    <name>joined on<dateofjoin>of<department>department is getting a salary<salary>

3.  Write the output of the following Queries:

    a)  Select Char(84,101,83,83.7) as Output;  1
    b)  Select Substr('Informatics Practices',3,4);  1
    c)  Select Truncate(1236.4051,3);  1
    d)  Select Round(1567.817,2);  1
    e)  Select Sign(-23);  1

4.  Remove the errors (if any) from the following queries and rewrite the corrected ones.

    a)  Select Concat("Indian",Uppercase('School'));  1
    b)  Select Cur_date();  1
    c)  Select Mid('Informatics',2);  1
    d)  Select Tname from teacher where No = = 2;  1
    e)  Select Mod(dayofmonth('2016-05-10')%6);  1

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