INDIAN SCHOOL SOHAR
UNIT TEST (2019-20)
INFORMATICS PRACTICES (265)

CLASS: XII **MAX. MARKS: 50**
DATE: 16/05/2019 **DURATION: 2 HOURS**

General Instructions:

i) All questions are compulsory.
ii) Answer the questions after carefully reading the text.

1. Answer the following questions:
   i) What does the NO ACTION attribute do in foreign key attribute? 2
   ii) Briefly explain ACID properties of a transaction. 2
   iii) Differentiate between WHERE and HAVING clauses. 2
   iv) Differentiate between ALTER and UPDATE commands. 2
   v) Write a short note on Integrity Constraints. 2
   vi) Write commands for enabling/disabling foreign key constraints. 2
   vii) What is a join? Briefly explain Cartesian Product. 2
   viii) Differentiate between Single Row and Aggregate functions. 2
   ix) What is MySQL? Write any three salient features of MySQL. 2
   x) What is an Event? Name any one event of a text field. 1

2. Find the output: 2

Name	Marks
Anand	95
Nandu	87
Simran	99

```
Set autocommit=0;
Insert into tbl values('Vikas', 58);
Savepoint A;
Update tbl set marks=marks+20 where name='Vikas';
Delete from tbl where marks<80;
Rollback to A;
Insert into tbl values('Paul', 54);
Select * from tbl;
```

3. Find the values of x, y and z: 2

```
int x=1, y, z;
y = x++ * 2;
z = y>=3 ? ++y : y++;
```

4. Rewrite the following using Java expressions: 2

   i) $\frac{\sqrt{a+b^2}}{2ab} - 4a$

   ii) $\log(a) + \frac{a^3 + b^3}{e^{2a}}$

5. Help Mr. Sajal in identifying the wrong statement(s) with reference to UNION clause: 1
   a. Each SELECT statement within UNION must have the same number of columns
   b. The columns must also have similar data types

c. The columns in each SELECT statement must also be in the same order.
d. By default, the UNION operator selects all the values.

Train

Column Name	Data Type	Size	Constraint
TrainID	Integer		Primary Key
TName	Varchar	30	
Source	Varcher	25	
Destination	Varchar	25	

Train

TrainID	TName	Source	Destination
3402	Century Express	New Delhi	Mumbai
4023	Superfast Express	Kanyakumari	Chandigarh
3424	Lucknow Mail	Lucknow	New Delhi
6542	Capital Express	Chennai	Kolkata
9876	Punjab Mail	Patna	Ludhiana
5400	Century Express	New Delhi	Kanpur

Reservation

RefNo	TrainID	Passenger	JourneyDate
C001	3402	Jishan Mittal	2018-06-25
S002	4023	Jessica Raj	2018-07-02
P001	9876	Paramjit Singh	2018-07-03
S003	3424	Gurjyot Singh	2018-07-03
C002	3402	Dia Mukharjee	2019-02-25
P002	9876	Meera Devi	2019-04-22

6. Write SQL commands for the following on the basis of tables given above:
   - i) Create table Train including its constraints. 2
   - ii) Add a foreign key constraint named as 'FK'on TrainID of Reservation table. 1
   - iii) Add a Not Null constraint on TName 1
   - iv) Display the passengers travelling in June or July 2018 1
   - v) Display the trains with more than 2 passengers 1
   - vi) Add a new column Fare as int into Train table 1
   - vii) List no, name of passenger and train along with total fare (total fare=fare+10% of fare) 1
   - viii) Count the total number of trains to Mumbai 1
   - ix) Count the total number of destination cities 1
   - x) Change the trainID for passenger No P002 to 6542. Also set name to Meena Devi 1
   - xi) List the passengers whose name starts with 'P' and have Singh as ending characters 1
   - xii) Delete records of passengers whose journey date is before 2018 1
   - xiii) Show a report as <Passenger> is going to <Source> via <TName> 1
   - xiv) Find the average fare of trains from each source 1
   - xv) To display Train detail which has no reservation yet 1
   - xvi) Add a new record in train table: 6600, Jaipur, Mumbai 1
   - xvii) Show the no and journey date of all passengers. If the date is not known, show 'Awaited'. 1

7. Find the errors (if any) in the following SQL commands and rewrite the corrected code:
   - i) Select * from reservation where passenger <> NULL; 1
   - ii) Select Char(65, 65.5, '65.5') from train; 1
   - iii) Select Day('2019-01-01'); 1

8. Find the output of following SQL commands:
   - i) SELECT T.* from Train T, Reservation R where T.TrainId=R.TrainId AND Source LIKE "%Delhi" OR Destination LIKE "%Delhi"; 1
   - ii) Select 6/3*9-4%3; 1
   - iii) Select round(7589, -1), truncate(7589, -1) 1

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