

**INDIAN SCHOOL SOHAR**  
**UNIT TEST (2015-16)**  
**INFORMATICS PRACTICES (065)**

**Class: XII**  
**Date: 18 May, 2015**

**Marks: 50**  
**Time: 2 Hours**

**Instructions:**

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

1. Answer the following questions:
- i) What are NOT NULL and DEFAULT constraints? 2
  - ii) Briefly explain ACID properties of a Transaction. 2
  - iii) What is the difference between a WHERE clause and a HAVING clause of SQL Select statement? 2
  - iv) List any four features of MySQL. 2
  - v) What is a Cartesian product? 2
  - vi) Write short notes on any two advantages of an RDBMS. 2
  - vii) Differentiate between Sysdate() and Now() functions. 2
  - viii) Mr. Krishnaswami is working on a database and has doubt about the concept of SAVEPOINT in a transaction. Write down the meaning of SAVEPOINT and provide a simple example considering yourself as an online web support executive. 2
  - ix) There is a column Salary in a table EMPLOYEE. The following two statements are giving different outputs. What may be the possible reason? 2  
 Select Count(\*) from employee;  
 Select Count(Salary) from employee;
  - x) Differentiate between Single Row and Aggregate functions. 2
  - xi) \_\_\_\_\_ means that data contained in the database is both accurate and consistent. 1

**Teacher**

Field	DataType	Constraint
TNo	Char(4)	Primary Key
TName	Varchar(20)	
Age	Int	
Dept	Varchar(15)	
Sal	Int	

**Student**

Field	DataType	Constraint
RNo	Int	Primary Key
SName	Varchar(25)	Not Null
Age	Int	
TNo	Char(4)	Foreign Key
DOA	Date	
Fee	Int	

**Table: Student**

RNo	SName	Age	TNo	DOA	Fee
1	Pankaj	24	T001	2010-10-10	400
2	Shalini	21	T005	2009-01-01	200
3	Sanjay	22	T004	2009-12-12	NULL
4	Sudha	25	NULL	2008-01-07	100
5	Govind	21	T001	2008-10-05	350

**Table: Teacher**

TNo	TName	Age	Dept	Sal
T001	Jugal	34	Computer	25000
T002	Sharmila	31	History	20000
T003	Sandeep	32	Maths	24000
T004	Rakesh	42	Hindi	25000
T005	Shyam	50	Chemistry	30000
T006	Garima	44	Computer	25000
T007	Sohail	35	Chemistry	19000

2. Write SQL commands for the following on the basis of tables given above:
  - i) Write command for creating the table Teacher including its constraints. 2
  - ii) Write command for creating the table Student including its constraints. 2
  - iii) Display the average salary of each department. 1
  - iv) Show details of students whose teacher name starts with 'S' or 'J'. 1
  - v) Display details of students whose teacher is not known. 1
  - vi) Find the total fee paid by the students of Hindi and Maths department. 1
  - vii) List details of students whose department is same as that of Govind. 1
  - viii) List details of teachers in increasing order of Department and salary. 1
  - ix) List various departments. 1
  - x) Show that maximum salary of Computer department. 1
  - xi) Show a report: <SName> was admitted on <DOA> in <Dept> department. 1
  - xii) List students appointed in 2009. 1
  - xiii) Show details of teachers whose salary is not in the range 20000-25000. 1
  - xiv) Display SName, RNo from student table and TName, Dept from Teacher table with their matching TNo. 1
  - xv) Increase the pay of all teachers by 15%. 1
  - xvi) Show No, Name, Salary and Allowances(10% of salary) of all teachers. 1
  - xvii) Show TNo, Salary and Name joined with first 5 characters of department of all teachers. 1
  
3. Find the errors (if any) in the following SQL commands, rewrite the corrected code and its O/P:
  - i) Select INSTR('Informatics Practices', 'a')/(2 MOD 5); 1
  - ii) Select LEFT('TOPPER', -3); 1
  - iii) Select LCASE("DAY", "Name") from dual; 1
  
4. Find the output of following SQL commands:
  - i) Select Concat(Substr("Removing",-8,5),Right("SUPER",2)) as MyString; 1
  - ii) Select Avg(Fee) from Student; 1
  - iii) Select 2\*4%5/8+4.5%5 as Result; 1
  - iv) Select Round(889.988, 2), Round(889.988, -3); 1
  - v) Select MOD(ROUND(125.60,1), 5); 1
  
5. Find output of query no. (h): 2

Table: tbl

City	Amt	Rating
A	1000	10
B	2500	5
C	3500	7

- a) Insert into tbl values('D', 1000, 10);
- b) Savepoint s1;
- c) Delete from tbl where Rating=10;
- d) Update tbl set Amt=1200 where City='A';
- e) Rollback to s1;
- f) Insert into tbl values('E', 2000, 8);
- g) Rollback;
- h) Select \* from tbl;

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