SQL Assessment October’15 Batch

**Objectives (5 marks)**

**1. Which of the following database object does not physically exist?**  
  
A) Base table  
B) Index  
C) View  
D) none of the above

**2. The query used to remove all references for the pubs and newspubs databases from the system tables is..........................**

A) DROP DATABASE pubs, newpubs;

B) DELETE DATABASE pubs, newpubs;

C) REMOVE DATABASE pubs, newpubs;

D) DROP DATABASE pubs and newpubs;

**3. ’\_ \_ \_ ’ matches any string of \_\_\_\_\_\_ three characters. ’\_ \_ \_ %’ matches any string of at \_\_\_\_\_\_ three characters.**

A) Atleast, Exactly

B) Exactly, Atleast

C) Atleast, All

D) All , Exactly

**4. Select name, course\_id**

**from instructor, teaches**

**where instructor\_ID= teaches\_ID;**

**This Query can be replaced by which one of the following ?**

A) Select name,course\_id from teaches,instructor where instructor\_id=course\_id;

B) Select name, course\_id from instructor natural join teaches;

C) Select name ,course\_id from instructor;

D) Select course\_id from instructor join teaches;

**5. Which of the following statements contains an error?**

A) Select \* from emp where empid = 10003;

B) Select empid from emp where empid = 10006;

C) Select empid from emp;

D) Select empid where empid = 1009 and lastname = ‘GELLER’;

**DML, DDL (5 marks)**

1. Create following table and insert some data:

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Criteria | Description | Default |
| EmpID (primary key) | Maximum of 30 characters | Employee ID | None |
| EmpName | Maximum of 40 characters | Employee Name | None |
| Basic | 6 digits before decimal and 2 after | Basic Pay | 0 |
| Hra | 5 digits before decimal and 2 after | House Rent | 0 |
| Doj | Date | Date of Joining | Today's Date |
| MgrID | Maximum of 30 characters | Values of existing EmpID | None |

create table Adnan\_Employee

(

EmpId varchar(30) primary key,

EmpName varchar(40),

BasicPay decimal(8,2) default '0',

HRA decimal(7,2) default '0',

DoJ date default getdate(),

MngrId varchar(30) constraint fk\_emp\_mngr references Adnan\_Employee(EmpId)

);

1. Add date of birth column. Default date should be 1.1.1942.

alter table Adnan\_Employee

add DoB date default '1.1.1942';

1. Insert some data. Make sure that HRA is 5% of Basic.

alter table Adnan\_Employee

add constraint cnstrnt\_hra check(HRA=0.05\*BasicPay);

insert into Adnan\_Employee

values ('E101','Adnan',10000.00,500.00,'12.8.2013','E101','10.4.1992')

insert into Adnan\_Employee

values ('E102','Deepika',5000.00,250.00,'1.18.2014','E101','10.24.1991')

insert into Adnan\_Employee

values ('E103','Swati',20000.00,1000.00,'3.25.2014','E101','8.5.1989')

insert into Adnan\_Employee

values ('E104','Bhagu',15000.00,750.00,'6.28.2014','E102','1.4.1991')

insert into Adnan\_Employee

values ('E105','Hemant',20000.00,1000.00,'1.8.2015','E103','6.5.1992')

1. Write query to List employee Id, age of all the employees who are not managers.

select EmpId, DATEDIFF("yyyy",DoB,GetDate()) as "Age" from Adnan\_Employee

where EmpId not in (select distinct MngrId from Adnan\_Employee)

1. Create a view called Emp\_Details containing employee and his manager details

create view Adnan\_Emp\_Details as select e.EMPID, e.EmpName, e.MngrId, m.EmpName as MngrName

from Adnan\_Employee as e

Left join Adnan\_Employee as m

on e.MngrId = m.EMPID;

select \* from Adnan\_Emp\_Details

**Queries (20 marks)**

/\* 1st table in the project\*/

create table **salespeople**

(snum numeric(5) primary key,

sname char(20),

city varchar(20),

rating numeric(3),

comm numeric(11,2));

/\* 2nd table in the project\*/

create table **customer**

(cnum numeric(5) primary key,

cname varchar(18),

city char(20),

snum numeric(5) references salespeople(snum));

/\* 3rd table orders \*/

create table **orders**

(onum numeric(5) primary key,

odate date,

oamount numeric(14,2),

cnum numeric(5) references customer(cnum),

snum numeric(5) references salespeople(snum));

insert into salespeople values(1001, 'Dr. James Bond', 'London',000, null);

insert into salespeople values(1001, 'James', 'London', 200, null)

insert into salespeople values(1002, 'Grass', 'London', 200, null)

insert into salespeople values(1004, 'Lucy Mathur', 'Mumbai', 200, null)

insert into salespeople values(1005, 'Nawab Hussain', 'Newyork', 200, null)

insert into salespeople values(1011, 'Raminder Sing', 'Paris', 200, null)

select \* from salespeople;

insert into customer values (2001, 'Zalim Singh', 'London',1002);

insert into customer values (2004, 'Ching Chong Chung', 'Newyork',1005);

insert into customer values (2008, 'Zalim Singh', 'Mumbai',1002);

insert into customer values (2007, 'Zalim Singh', 'Cairo',1011);

select \* from customer

insert into orders values (3001, GETDATE(), 3422.22, 2001, 1002);

insert into orders values (3005, '01-jul-2015', 3422.22, 2001, 1002);

insert into orders values (3005, '01-jul-2015', 3422.22, 2001, 1002);

insert into orders values (3007, '01-jan-2015', 9877.00, 2004, 1005);

insert into orders values (3010, '11-dec-2014', 89000, 2007, 1011);

select \* from orders

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WAQ means write a query.

Solve the following queries based on the above tables.

Part 1

1. WAQ to print all sales persons who live at London, New York

select snum,sname,city from Adnan\_salespeople where city IN ('London','Newyork')

1. WAQ to print cnum, cname, and city they live in. cname should be printed in upper case, city in lower case

select cnum as "Customer Number", UPPER(cname) as "Customer Name", LOWER(city) as "City" from Adnan\_customer

1. WAQ to print number of orders for each customer(use group by)

select cnum as "Customer Number", count(onum) as "Number of orders" from Adnan\_orders group by cnum

1. WAQ where you will print number of orders for every salesman, his highest order amount, lowest order amount and average order amount. Customer number should be printed in descending order

select snum,cnum,MAX(oamount) "Highest Order Amt", MIN(oamount) "Lowest Order Amt", AVG(oamount) "Average Order Amt"

from Adnan\_orders group by snum,cnum order by cnum desc

Part 2

Q1 WAQ to print all customers for more than one order

select cnum, count(onum) "Number of orders" from Adnan\_orders group by cnum having count(onum)>1

Q2 Print salesman who have no customers

select snum,sname from Adnan\_salespeople where snum not in (select distinct snum from Adnan\_orders)

Q3 WAQ to print all those customers who have not given any orders

select cnum,cname from Adnan\_customer

where cnum not in (select distinct cnum from Adnan\_orders)

Q4 print order number and 2 lowest order amount

select distinct top 2 onum, oamount from Adnan\_orders

order by oamount asc

Q5 print all the customer city of 6 characters (use like operator only)

select city from Adnan\_customer

where LTrim(RTrim(city)) like '\_\_\_\_\_\_'

Q6 print all those cities where customer stay ending with “**n”**

select \* from Adnan\_customer

where LTrim(RTrim(city)) like '%n'