Dot Net - SQL Server - DQ - S1 - Day 1

Q.
The two spatial data types in SQL Server are _____.
1). **Geometry**
2). **Geography**
3). HierarchyID
4). Alias

Q. Which of the following are Referential integrity?
1). **Foreign Key**
2). **Check**
3). Default
4). Unique is a property

Q. _____ contains information on all granted, converting, and waiting lock requests.
1). Syslogin
2). Sysdatabase
3). **SyslockInfo**
4). Syscacheobjects

Q.In _____ model Data and the relationships among them are represented in the form of record s and links.
1). **Network**
2). Hierarchical
3). Flat
4). Relational

Q. Which of the following are the tables from MSDB database?
1). **Sysjobs**
2). **Sysalerts**
3). Sysobjects
4). **Sysnotification**
5). Systypes

Q. The gender column can accept only 3 values - M,F and T.
What integrity enforcement is this ?
1). Referential
2). Entity

3). Required

4). **Domain**

Q. _____ is a user-
defined schema bound object that generates a steps of numeric values according
to the specification with which the steps were created.

1). Identity

2). **Sequence**

3). Trigger

4). Stored Procedure

Q._____ is a graphical user interface to SQL Trace for monitoring an instance of the SQL Serv
er Database
Engine or Analysis Services.

1). **SQL Profiler**

2). Database Tuning Advisor

3). SQL Server Configuration Manager

4). Reporting Service Configuration Manager

Q. Which of the following is not a system database?

1). Master

2). msdb

3). tempdb

4). **northwind**

5). model

Q. Sonali has a products dimension table which consists of information about the products.
She needs to sync-up this table with the latest information about the products from the source table.
Which SQL Server command/statement she should use?

1). Insert

2). Update

3). Delete

4). **Merge**

Dot Net - SQL Server - DQ - S1 - Day 2

Q. Which of the following query will give an error?
1). select deptno, job, sum(sal)
from emp
group by job, deptno;

2). select sum(sal), deptno, job
from emp
group by job, deptno;

3). **select deptno, job, sum(sal)**
from emp
group by job;

4). select sum(sal), job
from emp
group by job, deptno

Q. Give in which order following statements will be executed:
1. Where
2. Order by
3. Group by
4. From

1). 1,2,4,3

2). 1,4,3,2

3). 2,4,3,1

4). **4,1,3,2**

Q. Create table item (itemno int primary key, item_name nvarchar(15))
Which of the following statement is true?
1). Item number can be NULL

2). **Item name can be NULL**

3). Both item number and item name cannot be NULL

4). This is an example of DML statement

Q. Can a default constraint be defined for a column which has identity property?
1). **No**

2). Yes

3). Identity cannot be bound to a column

Q. All development centres of ABC company has always given a four character code. What would be the appropriate data type for the field storing centre code?

1). varchar

2). nvarchar

3). text

4). **Char**

Q. Given the StudentPerformance table:

```
Stud_code      int
Year           int
subject_code   char(3)
score          int
```

Which query will list the following report?

```
 year   subject   Average
```

1). **SELECT YEAR, SUBJECT_CODE, AVG(SCORE)**
FROM StudentPerformance
GROUP BY YEAR, SUBJECT_CODE

2). SELECT YEAR, SUBJECT_CODE, AVG(SCORE)
FROM StudentPerformance
GROUP BY SUBJECT_CODE

3). SELECT YEAR, SUBJECT_CODE, SCORE
FROM StudentPerformance
WHERE subject_code
ORDER BY SUBJECT_CODE, YEAR
COMPUTE AVG(score)

4). SELECT YEAR, SUBJECT_CODE, SUM(SCORE)
FROM StudentPerformance
GROUP BY YEAR, SUBJECT_CODE

Q. What will be the output of below query?

```
SELECT REPLACE('abcdefghicde','cde','xxx');
```

1). **abxxxfghixxx**

2). abdexfghixxx

3). abedcxxfghixxx

4). abxxfghixxx

Q. Meena would like to display all the books having "The" anywhere in the title. What would be the query ?

1). Select book_code, book_name
from book_master
where book_name like 'The%'

2). Select book_code, book_name
from book_master
where book_name like '%The'

3). Select book_code, book_name
from book_master
where book_name like 'The'

4). **Select book_code, book_name**
from book_master
where book_name like '%The%'

Q. Given a Table Structure and records:

Empno	EmpName	Phone
101	Abcd	123456
102	Efgh	NULL
103	Mnop	NULL
104	XYZ	234566
105	AAAA	NULL

What would be the output if Rahul says?
SELECT Empno
FROM EMP
WHERE Phone=NULL

1). 3 records

2). **0 records**

3). Error

4). 2 records

Q.Rahul have an employee table, containing 5000 records. Rahul want to add a Primary key constra int on Emp code.
How can Rahul achieve this?

1). Copy all the records to a temp table, Recreate the employee table with Primary Key and add the r ecords back

2). Create a rule for Primary key and bind it to the employee table

3). **Using alter table add constraint**

4). Cannot be done if table has records

Dot Net - SQL Server - DQ - S1 - Day 3

Q. Subqueries can be nested inside the _____ clause.

1). **Where**

2). Group by

3). **having**

4). select

Q. _____ takes the data from both result sets which are in common.

1). **Intersect**

2). Union

3). Union All

4). Except

Q. What is the output of the query?

```
SELECT BOOK_CODE, BOOK_NAME
FROM BOOK_MASTER
WHERE AUTHOR =
(SELECT AUTHOR
 FROM BOOK_MASTER
 WHERE BOOK_CATEGORY IN ('FIC','HIS')
)
```

1). Book Codes of all authors who have written books of fiction and History

2). Book Codes of all authors who have written books of fiction or History

3). Error : You cannot have a main query and subquery referring to the same table

4). **Error : Subquery is returning more than 1 row**

Q. Which two queries are indentical?

1). **SELECT customer, NULL as year, SUM(sales)**
FROM T
GROUP BY customer
UNION ALL
SELECT NULL as
customer, year, SUM(sales)
FROM T
GROUP BY year

2). SELECT customer, NULL as year, SUM(sales)
FROM T
GROUP BY customer
UNION
SELECT NULL as
customer, year, SUM(sales)
FROM T
GROUP BY year

3). **SELECT customer, year, SUM(sales)**
FROM T
GROUP BY GROUPING SETS ((customer), (year))

4). SELECT customer, year, SUM(sales)
FROM T
GROUP BY GROUPIBy ((customer), (year))

Solution :
option [1,3] are correct
Attempted :
option [1,3] are attempted

Q.Consider a join SalesTerritory table and the SalesPerson table on their TerritoryID columns. The results show any territory that has been assigned to a sales person.
To include all sales persons in the results, regardless of whether they are assigned a territory, Which query would be more appropriate?
1). SELECT st.Name AS Territory, sp.BusinessEntityID
FROM Sales.SalesTerritory st
LEFT OUTER JOIN Sales.SalesPerson sp
ON st.TerritoryID = sp.TerritoryID;

2). **SELECT st.Name AS Territory, sp.BusinessEntityID**
FROM Sales.SalesTerritory st
RIGHT OUTER JOIN Sales.SalesPerson sp
ON st.TerritoryID = sp.TerritoryID;

3). SELECT st.Name AS Territory, sp.BusinessEntityID
FROM Sales.SalesTerritory st
FULL OUTER JOIN Sales.SalesPerson sp
ON st.TerritoryID = sp.TerritoryID;

4). SELECT st.Name AS Territory, sp.BusinessEntityID
FROM Sales.SalesTerritory st
INNER JOIN Sales.SalesPerson sp
ON st.TerritoryID = sp.TerritoryID;

Q. Given the following tables:

Customers
==========
Cust_Code
Cust_name
Cust_city

Orders
========
Ord_no
Ord_date
Cust_Code
Order_Value
Query to find out all those customers who have placed an order larger than Rs 10,000 last year?
1). SELECT CUST_NAME
FROM CUSTOMERS
WHERE EXISTS
(SELECT ORD_NO
FROM ORDERS

```
 WHERE YEAR(ORD_DATE) = YEAR(getdate())-1
 AND Order_value >= 10000
)
```

2).
```
SELECT CUST_NAME
FROM CUSTOMERS
WHERE CUST_CODE IN
(SELECT ORD_NO
 FROM ORDERS
 WHERE YEAR(ORD_DATE) = YEAR(getdate())-1
 AND Order_value >= 10000
)
```

3).
```
SELECT CUST_NAME
FROM CUSTOMERS
WHERE CUST_CODE IN
(SELECT CUST_CODE
 FROM ORDERS
 WHERE YEAR(ORD_DATE) = YEAR(getdate())-1
 AND Order_value >= 10000
)
```

4).
```
SELECT CUST_NAME
FROM CUSTOMERS
LEFT OUTER JOIN ORDERS
ON CUSTOMERS.CUST_CODE = ORDERS,CUST_CODE
WHERE YEAR(ORD_DATE) = YEAR(getdate())-1
AND Order_value >= 10000
```

Q.Meena need to find out all the staff 's along with joining date who work in ROBOTICS department Which of the following query will give the required output?

1).
```
SELECT STAFF_CODE, STAFF_NAME, Hire_date
FROM STAFF_MASTER
WHERE DEPT_CODE =
 (
   SELECT DEPT_CODE
   FROM DEPARTMENT_MASTER
   WHERE DEPT_NAME='ROBOTICS'
  )
```

2).
```
SELECT STAFF_CODE, STAFF_NAME, HIRE_DATE
FROM STAFF_MASTER,
INNER JOIN DEPARTMENT_MASTER
ON  DEPARTMENT_MASTER.DEPT_CODE = STAFF_MASTER.DEPT_CODE
WHERE  DEPT_NAME='ROBOTICS'
```

3).
```
SELECT STAFF_CODE
FROM DEPARTMENT_MASTER
INNER JOIN  STAFF_MASTER
ON   STAFF_MASTER.DEPT_CODE =DEPARTMENT_MASTER.DEPT_CODE
WHERE  DEPT_NAME='ROBOTICS'
```

4).
```
SELECT STAFF_CODE, STAFF_NAME
FROM STAFF_MASTER
WHERE DEPT_CODE IN
(
```

```
  SELECT DEPT_CODE
  FROM DEPARTMENT_MASTER
  WHERE DEPT_NAME = 'ROBOTICS'
)
```

Q.A type of join which always returns the same number of rows, irrespective of the joining sequence of table

1). Natural Join

2). **Inner Join**

3). Outer Join

4). Self join

Q. Rahul gives the following query:

```
SELECT  DEPARTMENT.DEPT_CODE, DEPT_NAME,  STAFF_CODE, STAFF_NAME
FROM STAF, DEPARTMENT
```

1). Error : Where clause missing

2). All staff details along with department details

3). **A cross join between staff and department**

4). A natural join between Department and Staff

Q.Which of the following query will give correct result to find all the courses taught in the Odd semes ter 2014
but not in the Even semester 2015?

1). **SELECT DISTINCT Course_ID**
FROM Course
WHERE Semester = 'Odd' AND
Year= 2014 AND
Course_ID NOT IN (SELECT Course_ID
FROM CourseWHERE Semester = 'Even' AND Year= 2015);

2). SELECT DISTINCT Course_ID
FROM Course
WHERE CourseName NOT IN ('Odd', 'Even');

3). SELECT DISTINCT Course_ID
FROM Course
WHERE Semester = 'Odd' AND
Year= 2014 AND
Course_ID EXISTS (SELECT Course_ID
FROM CourseWHERE Semester = 'Even' AND Year= 2015);

4). SELECT DISTINCT Course_ID
FROM Course
WHERE Course_ID NOT IN (SELECT Course_ID
FROM CourseWHERE Semester = 'Even' AND Year= 2015);

Dot Net - SQL Server - DQ - S1 - Day 4

Q. What Type of Index is the below query?

```
CREATE NONCLUSTERED INDEX FIBillOfMaterialsWithEndDate
    ON Production.BillOfMaterials (ComponentID, StartDate)
    WHERE EndDate IS NOT NULL ;
GO
```

1). NonClustered

2). ColumStore

3). Unique

4). **Filtered**

Q. Given a procedure code:

```
create procedure calculate_grade(@i_studentcode int,@o_grade char OUT)
as
begin
    select @o_grade =
    case
       when (subject1+subject2+subject3) >= 80 then 'A'
       when (subject1+subject2+subject3) >= 60  then 'B'
    else  'F'
    END
    FROM student_marks
    Where student_code = @i_studentcode
end
```

What will be the output if the user enters null as student code?

1). A

2). B

3). F

4). **Null**

5). 0

Q. Meena creates a view:

```
 CREATE VIEW BOOK_INVENTORY_vw
 as
    SELECT  CATEGORY, COUNT(BOOK_CODE) as "No_Books"
     FROM BOOK_MASTER
     GROUP BY CATEGORY
```

Is the view updatable ?

1). Yes updatable

2). **Non Updatable**

3). The view cannot be created as it has a group by clause

4). The view cannot be created as it is not including the primary key of the base table

Q. Meena want to create an index which will satisfy the following criteria:
1)Faster query performance for common data warehouse queries
2)Data is stored in a highly compressed form to reduce the storage space

1). Create a Unique Index

2). Create a Non Clustered Index

3). Create a Clustered Index

4). **Create a Column Store Index**

Q.Given a procedure code. I need to add a validation that if the student code is null or less than 0, then it should raise an exception:

```
create procedure calculate_grade(@i_studentcode int,@o_grade char OUT)
as
begin
   select @o_grade =
   case
     when (subject1+subject2+subject3) >= 80 then 'A'
     when (subject1+subject2+subject3) >= 60  then 'B'
   else  'F'
   END
   FROM student_marks
   Where student_code = @i_studentcode
end
```

1).
```
create  procedure calculate_grade(@i_studentcode int,@o_grade char OUT)
 as
 begin
   if @i_studentcodeis null or @i_studentcode < 0
      print 'invalid code'
```

2).
```
create  procedure calculate_grade(@i_studentcode int,@o_grade char OUT)
 as
 begin
   if @i_studentcode = null or @i_studentcode < 0
     raiserror 'Invalid code'
```

3).
```
create  procedure calculate_grade(@i_studentcode int,@o_grade char OUT)
 as
 begin
   if @i_studentcode is null or @i_studentcode < 0
     raiserror('Invalid code',1,1)
```

4). create procedure calculate_grade(@i_studentcode int,@o_grade char OUT)
as
begin
  if @i_studentcodeis null or @i_studentcode < 0
    return 'Invalid code'

Q. Which of the following statements are true for clustered index?
1). On a table with more than one clustered index can be created.

2). The records are logically sorted on key value.

3). **The records in the table are physically sorted on key value.**

4). None of the above

Q. To get output from procedure _____ types of parameters can be used.
1). **OUT**

2). **OUTPUT**

3). INOUT

4). None of the above

Q. Given a prototype of a procedure:

```
create procedure proc1 (@var1  int , @var2 int OUT)
as
  begin
     ....
  end
```

How can the procedure be executed?
1).
```
begin
    declare @var1 int
    set @var1= proc1(10)
    print @var1
end
```

2).
```
begin
    declare @var1 int
     exec proc1(10,@var1)
    print @var1
end
```

3).
```
begin
    declare @var1 int
     exec proc1(10,@var1 out)
    print @var1
end
```

4).
```
begin
    declare @@var1 int
     exec proc1(10)
```

```
        print @@var1
end
```

Q. A Unique non clustered index is created for _____ constraint.

1). Primary Key

2). Foreign Key

3). **Unique**

4). Default

Q. create table sample

```
 (
    number int check (number > 10)
 )
  GO

  insert into sample values(2)
  GO
  IF @@error = 0
     print 'success'
  else
     print 'error'
```

What will be the output of above code snippet?

1). success

2). **error**

3). invalid :