1. There are two tables Orders and Order\_Details with 1 to many relation and Foreign key . I wanted to ensure that , if a record is deleted in Order tables curresponding records to be deleted in Order\_details. What is the best option
2. Write a Delete trigger on Order tables to the child records
3. Enable ON DELETE CASCADE
4. Write a stored procedure to implement the logic
5. None of the above
6. In which database should an object be created so that it is present in all the new databases that you create? Also include the query to prove the question statement. (1 mark)
7. The primary data file is saved with the extension (1 mark)
8. ldf
9. mdf
10. ndf
11. cdf
12. What are the authentication modes with which you can login to SQL Server? (1 mark)
13. Windows authentication
14. Primary authentication
15. Mixed mode authentication
16. Option a only
17. Option c only
18. Option a and b
19. Option a and c
20. What are the default system databases present in SQL Server? Also mention the role of each database. (2 marks)
21. Create an employee\_test table.

Create an AFTER INSERT TRIGGER on the employee\_test table.

Create an employee\_test\_audit table which will have the same columns as employee\_test table with two additional columns, audit\_action and audit\_timestamp, which will record all the INSERTS to the employee\_test table as well as the timing of these inserts. (5 marks)

1. Create table with the script given below

CREATE TABLE dbo.Employees

(

EmployeeID int NOT NULL PRIMARY KEY,

FirstName varchar (50) NOT NULL,

LastName varchar (50) NOT NULL,

ManagerID int NULL

)

GO

INSERT INTO Employees VALUES (101, 'Ken', 'Sanchez', NULL)

INSERT INTO Employees VALUES (102, 'Terri', 'Duffy', 101)

INSERT INTO Employees VALUES (103, 'Roberto', 'Tamburello', 101)

INSERT INTO Employees VALUES (104, 'Rob', 'Walters', 102)

INSERT INTO Employees VALUES (105, 'Gail', 'Erickson', 102)

INSERT INTO Employees VALUES (106, 'Joseph', 'Goldberg', 103)

INSERT INTO Employees VALUES (107, 'Dylan', 'Miller', 103)

INSERT INTO Employees VALUES (108, 'Diane', 'Margheim', 105)

INSERT INTO Employees VALUES (109, 'Gigi', 'Matthew', 105)

INSERT INTO Employees VALUES (110, 'Michael', 'Raheem', 106)

Write a Common Table Expression which will display employee name with respective manager name, and also the employee level. (5marks)

1. Using the **salesorderdetail table in adventureworks** and **over clause**, calculate the **sum, avg, count, min, max of orderquantity column**. ( 5marks)

SELECT SalesOrderID, ProductID, OrderQty

, SUM (OrderQty) OVER (PARTITION BY SalesOrderID) AS Total

, AVG (OrderQty) OVER (PARTITION BY SalesOrderID) AS "Avg"

, COUNT (OrderQty) OVER (PARTITION BY SalesOrderID) AS "Count"

, MIN (OrderQty) OVER (PARTITION BY SalesOrderID) AS "Min"

, MAX (OrderQty) OVER (PARTITION BY SalesOrderID) AS "Max"

FROM Sales.SalesOrderDetail

GO

1. CREATE VIEW Lunch

AS

SELECT 'Beer' AS item

UNION SELECT 'Olives'

UNION SELECT 'Bread'

UNION SELECT 'Salami'

UNION SELECT 'Calamari'

UNION SELECT 'Coffee';

GO

CREATE VIEW Dinner

AS

SELECT 'Wine' AS item

UNION SELECT 'Olives'

UNION SELECT 'Bread'

UNION SELECT 'Steak'

UNION SELECT 'Aubergines'

UNION SELECT 'Salad'

UNION SELECT 'Coffee'

GO

Create the above views running the script. (5marks)

1. Write a query using UNION operator in order to return everything you’ve eaten today
2. Using EXCEPT operator write a query which would return only the food you ate (or drank) for lunch, but did not have for dinner.
3. Using EXCEPT operator write a query which would return those items you had for dinner but not lunch
4. Use the INTERSECT operator to return only the food that was eaten at both meals
5. Write a query return a list of food that you ate at one of the meals, but not both meals, in other words, the food you ate other than bread, olives, and coffee
6. Write a common table expression to delete duplicate rows from the table below (2 marks)

CREATE TABLE DuplicateRcordTable (Col1 INT, Col2 INT)

INSERT INTO DuplicateRcordTable

SELECT 1, 1

UNION ALL

SELECT 1, 1 --duplicate

UNION ALL

SELECT 1, 1 --duplicate

UNION ALL

SELECT 1, 2

UNION ALL

SELECT 1, 2 --duplicate

UNION ALL

SELECT 1, 3

UNION ALL

SELECT 1, 4

Select \* from DuplicateRcordTable;

10) Write a Stored Procedure to find the list of employees (employee number and names) having more salary, than the average salary of all employees in that employee's department; given that the table employee contains columns EmployeeNumber, Name, Salary, and Department. (4 marks)

11) What is a function? (2 marks)

12) Difference between Function and Stored Procedure. (2 marks)

13) What are the differences between clustered and non clustered index? ( 2 marks)

14) Provide an example to explain covering index (5 marks)

15) How do you execute a stored procedure? ( 3 marks)

16) (3 marks)

1. What is seek/scan?
2. When does a table scan happen?
3. When does an index scan occur?

17) Create a view “alphabetical\_list\_of\_products” on Production.ProductsubCategory and Production.Product tables in adventureworks database, to display the products name in the Production.Product table in alphabetical order; based on the condition where the productsubcategoryid column values are present in both the tables (5 marks)

18) Create a table student with columns student\_id, student\_name, student\_gender.

Create a view student\_view on this table , on all the columns.

Write a query which will display all the column names defined in the view student\_view. ( 5 marks)

19) Create a view Customers\_without\_orders on customerid and accountnumber columns in the table Sales.Customer in adventureworks database; **to get the list of customers who do not have any orders**; based on the **condition** where customerid column values present in Sales.Customer are not present in Sales.SalesOrderHeader. (5 marks)

20) Create following four tables with the data as below: (4 marks)

TableA   
ID Name     
1   John      
2   Paul      
   
TableB   
ID Name

1   Ringo   
2   George   
   
TableC   
ID Name     
1   Bob      
   
TableD   
ID Name     
1   Kate

Create a single view to display all the columns from all the tables created.

21) Create a transaction tran1 for the

Query given below

Insert into Adventureworks.dbo.Employees

(Employeeid, firstname, lastname, ManagerID) values (111,’kim’,’sandra’, 107)

GO

Commit the transaction.

Create a transaction tran2 for the query given below:

Delete from Adventureworks.dbo.Employees where EmployeeID = 111;

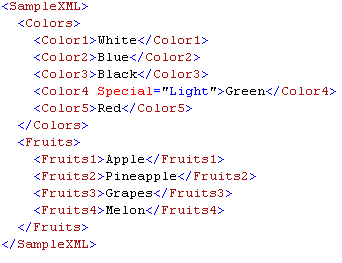
GO

Rollback the transaction.

What is the result for both the transactions tran1 and tran2; also explain the reason for getting those results. (4 marks)

22) (10 marks)

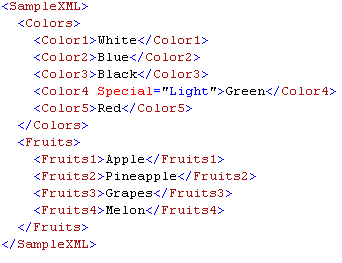
Following is the XML which we want to read:



Write a T-SQL Script **to read above XML**

23) (10 marks)

Following is the XML which we want to create:



Write a T-SQL Script to create above xml

24. How can I enforce to use a particular index? (1 mark)

25. Is it possible to add a WHERE clause to an Index in SQL Server 2008? (1 mark)

26. Use WHILE loop to generate the following output (using cursor) (4 marks)

1 X 2 = 2

2 X 2 = 4

3 X 2 = 6

4 X 2 = 8

5 X 2 = 10

6 X 2 = 12

7 X 2 = 14

8 X 2 = 16

9 X 2 = 18

10 X 2 = 20

27. Explain a simple method to avoid any user from creating a table in any database (Permissions). (1 mark)

28. Is there another way to process the result set row-by-row without using a cursor? What is it? (1 mark)

29. Which locks are used for operations that do not change or update data? ( 1 mark)

1. shared locks
2. update locks
3. intent locks
4. exclusive locks
5. Exclusive locks are not compatible with ( 1 mark)
6. Shared locks
7. Exclusive locks
8. Update locks
9. None of these