**Database Development 281**

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| **Mock Test** | **Total:** | **[50]** |

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| **Question 1** | | **Subtotal:** | **[5]** |
| **Indicate whether each of the given statements is true or false. 1 mark will be deducted for an incorrect answer** | | | |
|  | | | |
| 1.1 | Up to 249 clustered indexes can exist on a table.  False | | **[1]** |
| 1.2 | The Binary data type is used to store entire files of up to 2GB in size  False | | **[1]** |
| 1.3 | The FOREIGN KEY constraint is used to enforce referential integrity.  True | | **[1]** |
| 1.4 | The TRUNCATE statement removes rows specified by the WHERE clause  False | | **[1]** |
| 1.5 | Indexes can enforce entity integrity by guaranteeing that rows are not duplicated  True | | **[1]** |

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| **Question 2** | **Subtotal:** | **[5]** |
| **Write T-SQL code to complete the following task.** | | |
| Assume you have a database named **SampleDB**. Add secondary data file named *SampleData1* located in “D:\Sample\” with an initial size of 50MB, no limit on the maximum size and growth rate of 10% to the secondary file group | | |

ALTER DATABASE SampleDB

ADD FILE

(

NAME = ‘SampleData1’,

FILENAME = ‘D:\Sample\SampleData1.ndf’,

SIZE = 50mb,

GROWTH = 10%;

)

TO FILEGROUP SECONDARY

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| **Question 3** | | **Subtotal:** | | **[7]** | |
| **Using the Entity Relationship Diagram (ERD) for the *Northwind* database on the last page of this test, write T-SQL code to answer the following questions.** | | | | | |
| Create a new table **Contacts (ContactID, CustomerID, ContactName, ContactTitle, Phone, Fax)**; keeping the following in mind (Mark allocation where applicable): | | | | |
|  | ContactID is the primary key and will autogenerate values by 1 from 5001 | | [2] | |
|  | Enforce the foreign key relationship between Customers and Contacts | | [2] | |
|  | Prevent duplicate phone numbers | | [1] | |
|  | The contact title must be ‘Company Representative’ if no value is given | | [2] | |

USE NORTHWIND

Create Table Contacts

(

ContactID int IDENTITY(1,5001) NOT NULL Primary Key,

CustomerID int IDENTITY(1,5001) NOT NULL Foreign key REFERENCES (Customers(CustomerID),

ContactName VARCHAR(50) NOT NULL,

ContactTitle VARCHAR(50) NOT NULL,

Phone VARCHAR(50) NOT NULL Unique,

Fax VARCHAR(50) NOT NULL;

)

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| **Question 4** | **Subtotal:** | **[6]** |
| Display the OrderID, OrderDate, CompanyName (with column heading ‘Customer Name’) and Freight for all order made in year 1998. Include the Rand sign on the freight. | | |

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| **Question 5** | **Subtotal:** | **[8]** |
| Employees that are over 65 of age are due for retirement at the end of the year. Create a list of employees due for retirement sorted by hire date as shown below. | | |
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| **Question 6** | **Subtotal:** | **[6]** |
| We need to know the total number of products and the average price of products per each category. Display the category ID, total number of products and the average price. Include suitable column headings. | | |

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| **Question 7** | **Subtotal:** | **[4]** |
| Add a new category named “Supplements” with description “Supplementary foods” and CategoryID 9. | | |

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| **Question 8** | **Subtotal:** | **[4]** |
| Write T-SQL statement to copy contact information from the Customers table to the Contacts table created in Question 3. | | |

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| **Question 9** | **Subtotal:** | **[6]** |
| All suppliers in Sweden are increasing prices of their products by 5%. Effect this change on the database. | | |

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| **Question 10** | **Subtotal:** | **[4]** |
| Remove all products that are discontinued and have no units in stock. | | |

**ADDENDUM**

