Section 1: LINQ and Entity FW

##### Q.**Identify true/false statements: 1) Using LINQ, we can fetch data from database, in-memory collections and XML file. 2) LINQ bridges the gap between the world of objects and the world of data.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Which of the following can be regarded as a best LINQ feature?**

**1)**. **Consistent programming model regardless of the type of data.**

**2)**. **Type Safety**

**3)**. Intellisense Support

**4)**. Compile Time Error Detection

**Solution** :  
option [1] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Aparna is developing Hospital Management System. She is using the Database First approach  of Entity Framework. She has created Model as shown in the following figure: https://icompass.fs.capgemini.com/ckeditorimages/1494484272851_Mod3-Q81.jpg Based on this scenario, identify the code snippet to display the department wise  highest salary of the staff.**

**1)**. TrainingEntities trainingContext=new TrainingEntities();  
var query = from staff in trainingContext.Staff\_Master  
                        group staff by staff.Dept\_Code into s  
                        select new  
                        {  
                            Dept\_Code = s.Key,  
                            MaximumSalary =max(staff.Staff\_sal)  
                        };

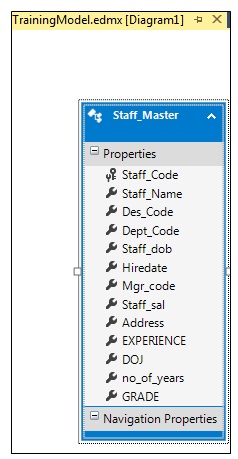
**2)**. **TrainingEntities trainingContext=new TrainingEntities();  
var query = from staff in trainingContext.Staff\_Master  
                        group staff by staff.Dept\_Code into s  
                        select new  
                        {  
                            Dept\_Code = s.Key,  
                            MaximumSalary = s.Max(staff => staff.Staff\_sal)  
                        };**

**3)**. TrainingEntities trainingContext=new TrainingEntities();  
var query = from staff in trainingContext.Staff\_Master  
                        group staff by staff.Dept\_Code into s  
                        select new  
                        {  
                            Dept\_Code = s.Key,  
                            MaximumSalary = staff => staff.Staff\_sal.Max();  
                        };

**4)**. TrainingEntities trainingContext=new TrainingEntities();  
var query = from staff in trainingContext.Staff\_Master  
                        group staff by staff.Dept\_Code into s  
                        select new  
                        {  
                            MaximumSalary = s.Max(staff => staff.Staff\_sal)  
                        };

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

Q.**Sumit is developing Institute Management System.   
He is using the Database First approach of Entity Framework.   
He has created Model named TrainingModel as shown in the following figure:  
  
  
  
Based on this scenario, identify the code snippet to display the total count of the staff.**

**1)**. **TrainingEntities trainingContext=new TrainingEntities();  
var query = (from staff in trainingContext.Staff\_Master  
                         select staff.Salary).Count();**

**2)**. **TrainingEntities trainingContext=new TrainingEntities();  
var query = (from staff in trainingContext.Staff\_Master  
                         select Count(staff.Salary));**

**3)**. TrainingEntities trainingContext=new TrainingEntities();  
var query = (from staff in trainingContext.Staff\_Master  
                         select staff.Salary).Size();

**4)**. TrainingEntities trainingContext=new TrainingEntities();  
var query = (from staff in trainingContext.Staff\_Master  
                         select staff.Salary).Length;

**Solution** :  
option [1] is correct

**Attempted** :  
option [2] is attempted

##### Q.**\_\_\_\_\_\_\_\_ method needs to be overridden to implement pluralization in code first approach  of entity framework.**

**1)**. Save()

**2)**. ValidateEntity()

**3)**. **OnModelCreating()**

**4)**. **SaveChanges()**

**Solution** :  
option [3] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Assume the name of a DbContext class  is Mydbcontext which allows us to save the inserted,  updated and deleted records in the associated database. Completed the code snippet for performing the same. Mydbcontext.\_\_\_\_;**

### **Attempted**

1. ModelCreated()

### **Solution**

1. SaveChanges()

2. ValidateEntity()

3. Save()

4. ModelCreated()

##### Q.**Which of the following LINQ operator allows us to concatenate multiple projection operations together?**

**1)**. **Group By**

**2)**. Select

**3)**. Aggregate

**4)**. **Select Many**

**Solution** :  
option [4] is correct

**Attempted** :  
option [1] is attempted

##### Q.**In code first approach of Entity Framework, we use \_\_\_\_\_\_\_ to implement foreign key relationship  between entities.**

**1)**. Model Designer

**2)**. **Data Annotation**

**3)**. Entity Client Data Provider

**4)**. LINQ To Entities

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

Q.**The following code has been written:  
private static void SetOperators()  
{  
            int[] numbers = { 2, 4, 6, 8, 10,4,10 };  
}  
Based on the above code, identify the correct operator to get the following output:  
2  
4  
6  
8  
10**

**1)**. **distinct**

**2)**. group by

**3)**. except

**4)**. min

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**What will be output of the following code? Int[] numbers={1,2,3,4,5,6,7,8,9,0}; var query=numbers.SingleOrDefault(n=>n>9); MessageBox.Show(query.ToString());**

**1)**. **0**

**2)**. null

**3)**. The code will result in compile time error.

**4)**. **The code will throw an exception.**

**Solution** :  
option [1] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Identify true/false statements: 1) LINQ allows us to work with data in a consistent way, regardless of type of data. 2) LINQ allows us to interact with data as objects.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. **Statement 1 is False  
Statement 2 is True**

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [2] is attempted

##### Q.**State True or False. 1.Data Annotations allows us to implement foreign key relationships between entities using  code first approach. 2.Pluralization allow the developer to differentiate between the Entity and the Entity Set**

**1)**. Statement1 is True  
Statement2 is False

**2)**. Both are false

**3)**. **Both are true.**

**4)**. Statement2 is True  
Statement1 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Which of the following strategy allows developer to create a model using Entity Framework designer?**

**1)**. **Model First**

**2)**. Code First

**3)**. Data First

**4)**. LINQ To Entities

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Identify the projection operator used in LINQ.**

**1)**. **order by**

**2)**. **select**

**3)**. from

**4)**. where

**Solution** :  
option [2] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Amey is developing a restaurant management system. He is using entity framework as  a data access mechanism. Amey wants to store address of customers. To store address information,  he has created a complex types named Name and Contact as shown in the diagram: https://icompass.fs.capgemini.com/ckeditorimages/1494482470463_Mod3-Q78.jpg Identify the code snippet to store contact details of the customer using the complex types created.**

**1)**. **Customer cust = new Customer();  
Name custName = new Name { FirstName="Asdin",LastName="Dhalla" };  
Contact custContact = new Contact {MobileNo=98273263772,Email="asdin.dhalla@gmail.com" };  
cust.CustomerName = custName;  
cust.CustomerContact = custContact;**

**2)**. Customer cust = new Customer();  
Name custName = new Name { FirstName="Asdin",LastName="Dhalla" };  
Contact custContact = new Contact {MobileNo=98273263772,Email="asdin.dhalla@gmail.com" };  
cust.CustomerName = custContact;  
cust.CustomerContact = custName;

**3)**. Customer cust = new Customer();  
Name custName = new Name { FirstName="Asdin",LastName="Dhalla" };  
Contact custContact = new Contact {MobileNo=98273263772,Email="asdin.dhalla@gmail.com" };  
cust.CustomerName = "Amit Joshi";  
cust.CustomerContact = 9988776655;

**4)**. Customer cust = new Customer();  
cust.CustomerName = new { FirstName="Asdin",LastName="Dhalla" };  
cust.CustomerContact =new {MobileNo=98273263772,Email="asdin.dhalla@gmail.com" };

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**What will be output of the following code: private static void RetrieveNumber() {        int[] numbers = {1, 7, 6, 9, 14};        var query = numbers.FirstOrDefault(n => n % 2 == 0);        Console.WriteLine(query); }**

**1)**. **0**

**2)**. 1

**3)**. **6**

**4)**. 14

**Solution** :  
option [3] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Sujay is developing a mobile wallet application.  He is using Entity Framework as a data access mechanism.  He wants to implement the following functionality: When customer log in and clicks on Orders tab, all orders placed by him/her should be retrieved. Identify the Entity Framework feature that will allow Sujay to implement this functionality.**

**1)**. LINQ To Entities

**2)**. **Complex Types**

**3)**. Foreign Key

**4)**. **Lazy Loading**

**Solution** :  
option [4] is correct

**Attempted** :  
option [2] is attempted

##### Q.**The following code has been written: private static void FilteringOperation() {             List<string> fruits = new List<string> { "Apple","Orange","Pineapple","Grapes","WaterMelon","Banana"}; } Based on the above code,Complete the code snippet to display fruit names exceeding 6 characters. var query = \_\_\_\_ foreach (string fName in query) {           Console.WriteLine(fName); }**

### **Attempted**

1. from fruitName in fruits where fruitName.Length > 6 select fruit;

### **Solution**

1. from fruitName in fruits where fruitName.Length > 6 select fruit;

2. from fruitName in fruits select fruit where fruitName.Length > 6;

3. from fruit in fruits orderby fruit select fruit;

4. from fruit in fruits having fruit.Size>6 select fruit;

##### Q.**Which of the following is a SET operator in LINQ?**

**1)**. min

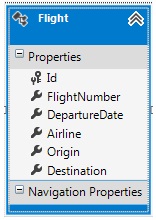
**2)**. **except**

**3)**. where

**4)**. AsEnumerable

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

Q.**Amol is developing Airline Reservation System.   
He is using entity framework as a data access mechanism.   
He has created Flight model as shown in the diagram:  
  
  
  
Amol has written the following code to add the flight information.  
  
Flight[] flights = new Flight[]   
{  
         new Flight {FlightNumber="A23451",DepartureDate="06/23/2016",Airline="Air India",Origin="Mumbai",Destination="New Delhi"},  
         new Flight {FlightNumber="A9866",DepartureDate="06/11/2016",Airline="Air India",Origin="Mumbai",Destination="New York"},**

##### **new Flight {FlightNumber="I78654",DepartureDate="06/25/2016",Airline="Indigo",Origin="New Delhi",Destination="Chennai"},          new Flight{FlightNumber="A98745",DepartureDate="06/30/2016",Airline="Air India",Origin="Bangalore",Destination="Mumbai"} }; flightContext.Flights.AddRange(flights); Identify the method Amol should call to save these changes to the Flight table.**

**1)**. OnModelCreating()

**2)**. ValidateEntity()

**3)**. Save()

**4)**. **SaveChanges()**

**Solution** :  
option [4] is correct

**Attempted** :  
option [4] is attempted

##### Q.**What will be output of the following code: private static void Calculate() {        int[] numbers = { 1, 2, 3, 4, 5 };        var query = numbers.Aggregate((a, b) => a + b);        Console.WriteLine(query); }**

**1)**. 0

**2)**. **15**

**3)**. 120

**4)**. 1+2+3+4+5

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which of the following approach of Entity Framework allows us to create a database from  the scratch using edmx file?**

**1)**. Code First

**2)**. **Model First**

**3)**. **Database First**

**4)**. Complex Type

**Solution** :  
option [2] is correct

**Attempted** :  
option [3] is attempted

#### Section 2: ADO Dot Net

##### Q.**\_\_\_\_\_\_\_\_ is the core component of the disconnected architecture of ADO.NET that caches data  locally on the client.**

**1)**. **DataSet**

**2)**. DataAdapter

**3)**. **CommandBuilder**

**4)**. Transaction

**Solution** :  
option [1] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Select the true statement(s) w.r.t DataTable in ADO.Net:**

**1)**. **DataTable class is a member of the System.Data namespace within the .NET Framework class library.**

**2)**. DataTable needs to be created independently not  as a member of a DataSet

**3)**. **We can access the collection of tables in a DataSet through the Tables property of the DataSet object.**

**4)**.  DataTable objects can't  be used in conjunction with the DataView.

**Solution** :  
option [1,3] are correct

**Attempted** :  
option [1,3] are attempted

##### Q.**Identify true/false statements w.r.t. Disconnected Architecture: 1) CommandBuilder executes insert, update and delete statements for every inserted,  updated or deleted row in a DataSet table. 2) DataAdapter generates insert, update and delete statements for every inserted,  updated or deleted row in a DataSet table.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. Statement 1 is True  
Statement 2 is True

**4)**. **Statement 1 is False  
Statement 2 is False**

**Solution** :  
option [4] is correct

**Attempted** :  
option [1] is attempted

##### Q.**If you create a database connection inside one of his managed code objects and you want to release  this unmanaged resource as soon as possible. How does you accomplish this?**

**1)**. **Create a finalize method and let the garbage collector execute it at collection time.**

**2)**. **Override a Dispose method and call it explicitly when you want to release the resource.**

**3)**. Call the System.GC.Collect method.

**4)**. Don’t do anything, let automatic garbage collection clean up the unmanaged resource.

**Solution** :  
option [2] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Identify true/false statements w.r.t. disconnected architecture: 1) A disconnected environment improves the scalability and performance of an applications. 2) It is not possible to sort or filter data stored in a DataSet.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. Statement 1 is True  
Statement 2 is True

**4)**. **Statement 1 is False  
Statement 2 is False**

**Solution** :  
option [1] is correct

**Attempted** :  
option [4] is attempted

Q.**Consider a table "Employees" with attributes empId,empName and salary.   
You are given the following code snippet to insert a new row in the above table using a dataset:  
  
            SqlConnection con = new SqlConnection("data source=atrgsql;initial catalog=sampledb;user=sa;password=pass");  
            SqlDataAdapter adapter = new SqlDataAdapter("select \* from Employees", con);  
            DataSet dataset = new DataSet();  
            adapter.Fill(dataset, "Employees");  
            DataRow row = dataset.Tables["Employees"].NewRow();  
            row["emptId"] = "A1121";  
            row["empName"] = "Mahesh Kumar";  
            row["salary"] = 45000;  
            dataset.Tables["Employees"].Rows.Add(row);  
            adapter.Update(dataset);  
  
What will be the result of executing the code snippet in an application, assuming there are no   
connection problems?**

**1)**. **code throws an exception.**

**2)**. code fails to compile.

**3)**. code compiles and executes , but does not insert any row.

**4)**. **a row is successfully inserted into the table.**

**Solution** :  
option [1] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Sonu has created a Dataset object. He wants to  check whether the DataSet containing has  undergone any changes, since it was last loaded. Which Dataset member he should use?**

**1)**. Acceptchanges()

**2)**. GetChanges()

**3)**. **HasChanges()**

**4)**. RejectChanges()

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Identify true/false statements w.r.t. ADO.NET: 1)  We need to set Transaction property of Command object to execute command as a part of transaction. 2) BeginTransaction method of Command object returns a Transaction object.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [1] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Which of the following is used to create the type safe connection string?**

**1)**. BulidConnectionString

**2)**. **ConnectionStringBuilder**

**3)**. StringBuilder

**4)**. **ConnectionString**

**Solution** :  
option [2] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Given the code:( Assume that there are 15 rows in the Products table) SqlConnection con=new SqlConnection("connection string");           con.Open();           SqlCommand command = new SqlCommand("select \* from products" , con);    int result = command.ExecuteNonQuery();           Console.WriteLine(result); What would be the output of the above code snippet?**

**1)**. 0

**2)**. 1

**3)**. **15**

**4)**. **-1**

**Solution** :  
option [4] is correct

**Attempted** :  
option [3] is attempted

##### Q.**The \_\_\_\_\_\_ keyword ensures that nothing happens before the called asynchronous method is finished.**

**1)**. **await**

**2)**. async

**3)**. BeginInvoke

**4)**. EndInvoke

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**State whether true/false w.r.t. Disconnected Architecture: 1) If RowState of a row in DataTable is Modified, then CommandBuilder generates UpdateCommand       for that row. 2) If DataSet contains a row with a RowState of Detached, then CommandBuilder generates       InsertCommand for that row.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [1] is correct

**Attempted** :  
option [3] is attempted

##### Q.**\_\_\_\_\_\_\_ provides a way for the DataReader to handle rows that contain columns with  large binary or string values.**

**1)**. **CommandBehavior.SequentialAccess**

**2)**. CommandBehavior.CloseConnection

**3)**. Dataadapter

**4)**. **DataReader**

**Solution** :  
option [1] is correct

**Attempted** :  
option [4] is attempted

##### Q.**\_\_\_\_\_\_\_\_\_ object are in-memory objects that can hold tables, views, and relationships**

**1)**. **DataReader**

**2)**. **DataSet**

**3)**. ResultSet

**4)**. RecordSet

**Solution** :  
option [2] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Match the following Command object methods with its return type.**

### **Column A**

1. ExecuteNonQuery()

2. ExecuteReader()

3. ExecuteScalar()

4. ExecuteXmlReader

### **Column B(Attempted)**

1. Returns single data

2. Returns resultset

3. Does not return resultset

4. Returns data in XML format

### **Solution**

1. Does not return resultset

2. Returns resultset

3. Returns single data

4. Returns data in XML format

##### Q.**Which of the following is the best place to store connection string?**

**1)**. Code behind file

**2)**. **Configuration File**

**3)**. Resource File

**4)**. Static Variable

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Cursors allow you to manipulate data on a row by row basis in microsoft SQL server.  Which of the following component in ADO.NET lets a developer perform this action?**

**1)**. SqlCommandBuilder class.

**2)**. **SqlDataReader class.**

**3)**. SqlCursor class.

**4)**. No such implementation in ADO.NET.

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Amit wants to write C# code to calls a sql server stored procedure "uspGetProductDetails" which takes one integer parameter. What is the correct code snippet for the same?**

**1)**. string sqlConnectString = "Data Source=(local);" +  
"Integrated security=SSPI;Initial Catalog=Pubs;";  
  
string sqlSelect = "uspGetProductDetails";  
SqlConnection connection = new SqlConnection(sqlConnectString);  
  
SqlCommand command = new SqlCommand(sqlSelect, connection);  
command.CommandType = "Calling StoredProcedure";  
  
command.Parameters.Add("@ProductID", SqlDbType.Int).Value = 100;  
  
  
DataTable dt = new DataTable( );  
SqlDataAdapter da = new SqlDataAdapter(command);  
da.Fill(dt);

**2)**. **string sqlConnectString = "Data Source=(local);" +  
"Integrated security=SSPI;Initial Catalog=Pubs;";  
  
string sqlSelect = "uspGetProductDetails";  
SqlConnection connection = new SqlConnection(sqlConnectString);  
  
SqlCommand command = new SqlCommand(sqlSelect, connection);  
command.CommandType = CommandType.StoredProcedure;  
  
command.Parameters.Add("@ProductID", SqlDbType.Int).Value = 100;  
  
  
DataTable dt = new DataTable( );  
SqlDataAdapter da = new SqlDataAdapter(command);  
da.Fill(dt);**

**3)**. string sqlConnectString = "Data Source=(local);" +  
"Integrated security=SSPI;Initial Catalog=Pubs;";  
  
string sqlSelect = "uspGetProductDetails";  
SqlConnection connection = new SqlConnection(sqlConnectString);  
  
SqlProcedure command = new SqlProcedure(sqlSelect, connection);  
command.Parameters.Add("@ProductID", SqlDbType.Int).Value = 100;  
  
  
DataTable dt = new DataTable( );  
SqlDataAdapter da = new SqlDataAdapter(command);  
da.Fill(dt);

**4)**. string sqlConnectString = "Data Source=(local);" +  
"Integrated security=SSPI;Initial Catalog=Pubs;";  
  
string sqlSelect = "uspGetProductDetails";  
SqlConnection connection = new SqlConnection(sqlConnectString);  
  
SqlCommand command = new SqlCommand(sqlSelect, connection);  
  
command.Parameters.Add("@ProductID", SqlDbType.Int).Value = 100;  
  
  
DataTable dt = new DataTable( );  
SqlDataAdapter da = new SqlDataAdapter(command);  
da.CommandType = AdapterType.StoredProcedure;  
  
da.Fill(dt);

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which ADO.NET Command object’s method would you use when a query returns the SUM  of a column in a table?**

**1)**. ExecuteNonQuery

**2)**. **ExecuteScalar**

**3)**. ExecuteReader

**4)**. **ExecuteDataReader**

**Solution** :  
option [2] is correct

**Attempted** :  
option [4] is attempted

##### Q.**State True or False: 1. Fill and Open method of Data Adapter automatically opens and closes the connection. 2. You can use a  DataView to obtain a sorted  or filtered view of data in a DataTable.**

**1)**. Statement1 is True  
Statement2 is False

**2)**. Statement1 is False  
Statement2 is True

**3)**. **Both are true.**

**4)**. Both are false.

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**You are developing a .NET application using ADO.NET.  You need to ensure that the application can connect to any type of database. How will you create this so that the application is database independent ?**

**1)**. DbConnection connection = new OdbcConnection(connectionString);

**2)**. DbConnection connection = new OleDbConnection(connectionString);

**3)**. DbProviderFactory factory = DbProviderFactories.GetFactory("System.Data.Odbc");  
DbConnection connection = factory.CreateConnection();

**4)**. **// databaseProviderName will come from config file  
  
DbProviderFactory factory = DbProviderFactories.GetFactory(databaseProviderName);  
DbConnection connection = factory.CreateConnection();**

**Solution** :  
option [4] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Joel has created a database connection in his application. He wants to release this connection(unmanaged resource) after the use. How does he accomplish the same?**

**1)**. He creates a finalize method and lets the garbage collector execute it at collection time.

**2)**. He calls the System.GC.Collect method.

**3)**. **He creates a Dispose method and calls it explicitly when he wants to release the resource.**

**4)**. He lets automatic garbage collection to clean up the unmanaged resource.

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**You are developing Data Access Layer. The application uses MS SQL server as the data source currently, but it is subject to change. You need to design the DAL to enable changes smoothly. How will you achieve this?**

**1)**. save the connection string name in the configuration file. Use the SqlConnection and SqlCommand   
classes to create connections and commands .

**2)**. save the connection string with provider name in the configuration file. Use the generic classes to   
create connections and commands based on the provider.

**3)**. write separate methods to process connections and commands for different data sources.

**4)**. **save the connection string with provider name in the configuration file. Use the generic and factory   
classes to create connections and commands based on the provider.**

**5)**. None of these

**Solution** :  
option [4] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Identify the sequence of steps of Transaction in a connected environment: 1. Open a database connection. 2. Begin a transaction. 3. Fire queries directly against the connection via the command object. 4. Commit or roll back the transaction. 5. Close the connection**

**1)**. **12345**

**2)**. **13245**

**3)**. 14325

**4)**. 15234

**Solution** :  
option [1] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which method of XmlDocument class is used to load the XmlDocument from a specified URL?**

**1)**. **Load**

**2)**. LoadFromFile

**3)**. **LoadFromUrl**

**4)**. Save

**Solution** :  
option [1] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Which of the following is/are valid SqlCommand object ?**

**1)**. **SQLCommand cmd=new SQLCommand();**

**2)**. **SQLCommand cmd = new SqlCommand(String CommandText, SqlConnection con);**

**3)**. **SQLCommand cmd = new SqlCommand(String CommandText, SqlConnection con, SqlTransaction trans);**

**4)**. SQLCommand cmd = new SqlCommand(String CommandText,  SqlTransaction trans,SqlConnection con);

**Solution** :  
option [1,2,3] are correct

**Attempted** :  
option [1,2,3] are attempted

##### Q.**Karthik is passing a parameter named "paramDoJ" to the command object.  He would like to assign null value to this parameter.  Complete the code snippet to implement this functionality. paramDob.Value = \_\_\_\_**

### **Attempted**

1. DB.Null;

### **Solution**

1. DBNull.Value;

2. SQLNull.Value;

3. DB.Null;

4. SQL.Null;

##### Q.**State whether true/false  w.r.t. ADO.NET: 1) Connection Pooling improves the performance of the application. 2) DataReader returns forward only set of records.**

**1)**. **Statement 1 is True   
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [1] is attempted

##### Q.**\_\_\_\_\_\_\_\_\_object of ADO.Net does not support updating.**

**1)**. DataAdapter

**2)**. Dataset

**3)**. **DataMember**

**4)**. **DataReader**

**Solution** :  
option [4] is correct

**Attempted** :  
option [3] is attempted

##### Q.**The following ADO.NET code has been written to fetch the data: 1)  SqlConnection connection=new SqlConnection("Valid connection string"); 2) SqlCommand command=new SqlCommand("Select \* From Employee",connection); 3) SqlDataAdapter adapter=//code to instantiate SqlDataAdapter 4) DataSet dSet=new DataSet(); 5) adapter.Fill(dSet,"Employee"); Choose the correct option to complete the missing code at line no 4.**

**1)**. new SqlDataAdapter();

**2)**. new SqlDataAdapter(SqlCommand);

**3)**. **new SqlDataAdapter(command);**

**4)**. new SqlDataAdapter(connection);

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Using \_\_\_\_\_\_ we can increase application performance by retrieving data as soon as it is available,  rather than waiting for the entire results of the query to be returned, and storing only one row  at a time in memory.**

**1)**. **DataReader object**

**2)**. **DataAdapter object**

**3)**. Recordset object

**4)**. Connection object

**Solution** :  
option [1] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Identify true/false statements w.r.t. Disconnected Architecture: 1) DataAdapter fetches data from database and puts it into DataSet. 2) CommandBuilder is used to cascade changes made to the DataSet with associated database.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Identify true/false statements w.r.t. ADO.NET: 1) We cannot pass parameters to Command object. 2) Stored procedures can return a value.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. Statement 1 is True  
Statement 2 is True

**4)**. **Statement 1 is False  
Statement 2 is False**

**Solution** :  
option [1] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Match the DataSet types with the description.**

### **Column A**

1. A typed DataSets

2. Untyped DataSets

### **Column B(Attempted)**

1. Errors cannot be trapped at the design time as they are filled at run time when the code executes.

2. Perform error checking regarding their schema at design time using the .xsd definitions.

### **Solution**

1. Perform error checking regarding their schema at design time using the .xsd definitions.

2. Errors cannot be trapped at the design time as they are filled at run time when the code executes.

##### Q.**Which of the following statements is NOT true about DataReader?**

**1)**. DataReader object requires an open database connection and increases network activity.

**2)**. DataReader is extremely fast and lightweight.

**3)**. **Using DataReader, it is possible to navigate to the previous row of the result set.**

**4)**. **DataReader is used to examine the results of a query one at a time.**

**Solution** :  
option [3] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Which method of a DataTable class is used to create a blank row with the same schema as the table?**

**1)**. Add

**2)**. AddRow

**3)**. New

**4)**. **NewRow**

**Solution** :  
option [4] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Sali wants to retrieve maximum salary of the employees. He has written the following query for this: SELECT Max(Salary) FROM Employees Which method of command object Sali should use ?**

**1)**. ExecuteNonQueryAsync()

**2)**. **ExecuteNonQuery()**

**3)**. ExecuteReader()

**4)**. **ExecuteScalar()**

**Solution** :  
option [4] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Password property of SqlCredential class is of type \_\_\_\_\_\_\_\_\_\_\_.**

**1)**. object

**2)**. string

**3)**. **SecureString**

**4)**. int

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Megha is developing an application by using the Microsoft ADO.NET.  She wants that the application can connect to any type of database.  She has return the code as given below. DbProviderFactory factory = \_\_\_\_ . \_\_\_\_(databaseProviderName); DbConnection connection = factory.CreateConnection();**

### **Attempted**

1. DbProviderFactory

2. GetFactory

### **Solution**

1. DbProviderFactories

2. GetFactory

3. DbProviderFactory

##### 4. GetFactories

##### Q.**Which of the following object could be used as a primary key for a DataTable in ADO.NET?**

**1)**. ForeignKeyConstraint

**2)**. **KeyConstraint**

**3)**. **UniqueConstraint**

**4)**. None of the above

**Solution** :  
option [3] is correct

**Attempted** :  
option [2] is attempted

Q.**What will be the output of below code snippet?  
  
SqlConnection cn = new SqlConnection();  
cn.ConnectionString = "Server=myServerAddress;Database=myDataBase;  
User Id=myUsername;Password=myPassword;";  
cn.Open();  
SqlDataAdapter da = new SqlDataAdapter("SELECT \* FROM Person", cn);  
DataSet ds = new DataSet();  
da.Fill(ds, "Person");  
foreach (DataRow row in ds.Tables[0].Rows)  
{  
Debug.WriteLine(string.Format("First Name: {0} , Last Name: {1}",  
row["FirstName"], row["LastName"]));  
}**

**1)**. Will display all records from person table

**2)**. **Will display  only firstname ,lastname from the person table**

**3)**. **Code will not execute successfully**

**4)**. Connection string should be specified in App.config file

**Solution** :  
option [3] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Consider following code:  foreach (DataRow row in dt.Rows)              {                 if ( \_\_\_\_ )                 {                                 }              } Note: dt - DataTable Drag and Drop the code to be substituted to process only those DataRows  which are updated in the DataTable?**

### **Attempted**

1. row.RowState == DataRowState.Updated

### **Solution**

1. row.RowState == DataRowState.Modified

2. row.IsModified() == true

3. row.RowState == DataRowState.Updated

4. row.RowUpdated == true

##### Q.**Which property of SqlConnection class gives us ability to store username and password outside  of connection string?**

**1)**. ConnectionString

**2)**. **Credential**

**3)**. **SqlCredential**

**4)**. Database

**Solution** :  
option [2] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Which object helps to build all the sql commands like insert, update, delete for the DataAdapter?**

**1)**. **CommandBuilder**

**2)**. DataReader

**3)**. Dataset

**4)**. DataTable

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

Q.**Sharanya wants to insert a new record in the Production. ProductCategory table.  
Complete the following code with the most suitable option?  
  
static public int AddProductCategory(string newName, string connString)  
{  
    Int32 newProdID = 0;  
    string sql =  
        "INSERT INTO Production.ProductCategory (Name) VALUES (@Name); "  
        + "SELECT CAST(scope\_identity() AS int)";  
    using (SqlConnection conn = new SqlConnection(connString))  
    {  
        SqlCommand cmd = new SqlCommand(sql, conn);  
        cmd.Parameters.Add("@Name", SqlDbType.VarChar);  
        \_\_\_\_  
        try  
        {  
            conn.Open();  
            newProdID = (Int32)cmd.ExecuteNonQuery();  
        }  
        catch (Exception ex)  
        {  
            Console.WriteLine(ex.Message);  
        }  
    }  
    return (int)newProdID;  
}**

### **Attempted**

1. cmd.Parameters["@Name".Value = newName;]

### **Solution**

1. cmd.Parameters["@Name"].Value = newName;

2. cmd.Parameters["@Name"].Text = newName;

3. cmd.Parameters["@Name"].ParameterValue = newName;

4. cmd.Parameters["@Name"].Parameter = newName;

##### Q.**When calling an async method, \_\_\_\_\_\_\_ is returned.**

**1)**. int

**2)**. void

**3)**. **object**

**4)**. **Task**

**Solution** :  
option [4] is correct

**Attempted** :  
option [3] is attempted

##### Q.**You have written the following query: ("Select \* from Customers; Select \* from Products)in you Sqlcommand object.  Which object you will use so that both the queries are executed?**

**1)**. **NextResult**

**2)**. **HasRows**

**3)**. GetName

**4)**. GetOrdinalPosition

**Solution** :  
option [1] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Identify true/false statements w.r.t. ADO.NET: 1) To pass parameters to stored procedure, we add parameters to Parameters collection of Connection object. 2) DataReader object is used to examine the results of a query one row at a time.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. **Statement 1 is False  
Statement 2 is True**

**3)**. Statement 1 is True  
Statement 2 is True

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [2] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Drag and drop the answer from the given options: Data Helper Utilities : \_\_\_\_ Data Integrity: \_\_\_\_**

### **Attempted**

1. Assist in data manipulation

2. data transformation

3. and data access within the DAL

4. Navigating between multiple discrete results

### **Solution**

1. Assist in data manipulation, data transformation, and data access within the DAL

2. DAL Design Consideration

3. Data Access should be quick and in forward-only manner

4. Navigating between multiple discrete results

##### Q.**If the following query is used to retrieve data into a DataReader,  which one of the following methods allows access to the second set of data  (the data from Employees)?  SELECT \* FROM Department; SELECT \* FROM Employees;**

**1)**. NextTable

**2)**. NextData

**3)**. **NextResult**

**4)**. **NextValues**

**5)**. None of these

**Solution** :  
option [3] is correct

**Attempted** :  
option [4] is attempted

##### Q.**A Task can return \_\_\_\_\_\_\_\_\_**

**1)**. **int**

**2)**. **void**

**3)**. **Reference Type**

**4)**. Task cannot return a value.

**Solution** :  
option [1,2,3] are correct

**Attempted** :  
option [2,3] are attempted

##### Q.**By default, the data reader is positioned on the first result. We can use \_\_\_\_\_\_\_\_\_\_ method to  process multiple results, which can be generated by executing batch Transact-SQL statements.**

**1)**. NextTable

**2)**. NextData

**3)**. **NextResult**

**4)**. **NextValues**

**Solution** :  
option [3] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Supratim is developing a windows form application using disconnected architecture.  He has stored data into a DataSet object named dsEmployee.  He has a written a code that updates the record in the dsEmployee DataSet.  What will be the value of RowState property for this updated row?**

**1)**. **Updated**

**2)**. **Modified**

**3)**. Inserted

**4)**. Detached

**Solution** :  
option [2] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Identify true/false statements w.r.t. Disconnected Architecture: 1) DataAdapter acts as a bridge between disconnected DataSet and database. 2) CommandBuilder uses SelectCommand property of DataAdapter to generate insert,  update and delete commands for every inserted, updated or deleted row in a DataSet.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**DefaultView property of a \_\_\_\_\_\_ object returns a DataView.**

**1)**. Command

**2)**. **DataTable**

**3)**. DataAdapter

**4)**. Connection

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Identify true or false statements: 1. There is no difference between DataRelation object and Foreign Key constraint. 2. Two data adapters can be connected to same datasource by using single connection object.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. **Statement 1 is False  
Statement 2 is True**

**3)**. Both are true.

**4)**. Both are false.

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Identify true/false statements w.r.t. connected architecture: 1) Application interacts with data source through SQL requests using the connection and command objects. 2) After the execution of command, resultset is fetched and used for read operations.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. **Statement 1 is False  
Statement 2 is True**

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Given the  following code (grdCountry is name of the DataGridView): string connectionString = ConfigurationManager.ConnectionStrings["Northwind"].ConnectionString; string SQL = "SELECT \* FROM Customers"; SqlConnection con = new SqlConnection(connectionString); SqlCommand com = new SqlCommand(SQL, con); SqlDataAdapter adapter = new SqlDataAdapter(com); DataSet ds = new DataSet("Northwind"); con.Open(); adapter.Fill(ds, "Customers"); con.Close(); DataView viewCountry = new DataView(ds.Tables["Customers"]); \_\_\_\_ \_\_\_\_ Complete the code snippet to display the customers from India in the DataGridView.**

### **Attempted**

1. grdIndia.DataView = viewCountry;

2. viewCountry.RowFilter = "Country = 'India'";

### **Solution**

1. viewCountry.RowFilter = "Country = 'India'";

2. grdIndia.DataSource = viewCountry;

3. viewCountry.RowFilter = "where Country = 'India'";

4. grdIndia.DataView = viewCountry

##### Q.**You are creating a Windows Forms application. The windows form allows users to select a Department from the combo box control. The valid departments are stored in a database table named Departments.  DepartmentId must be stored as the user's selected item.  Which of the following actions you should perform to complete this requirement? You have written following code snippet. SqlConnection cn = new SqlConnection(connString); SqlDataAdapter da = new SqlDataAdapter("Select \* From Departments", cn); DataSet dsDepartment  = new DataSet(); da.Fill(dsDepartment); Identify the correct steps to achieve the same.**

**1)**. Set the DataSource property of the combo box to DataSet .  
Set the DisplayMember property of the combo box to DepartmentID column.  
Set the ValueMember property of the combo box to DepartmentName column.

**2)**. **Set the DataSource property of the combo box to DataSet   
Set the DisplayMember property of the combo box to DepartmentName column  
Set the ValueMember property of the combo box to DepartmentID column.**

**3)**. **Set the DataSource property of the combo box to the Departments table.  
Set the DisplayMember property of the combo box to DepartmentID column.  
Set the ValueMember property of the combo box to DepartmentName column**

**4)**. Set the DisplayMember property of the combo box to DepartmentID column.  
Set the ValueMember property of the combo box to DepartmentName column

**Solution** :  
option [2] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Which property is used to track the changes that have been made to a DataRow?**

**1)**. HasChanges

**2)**. **RowState**

**3)**. RowChanged

**4)**. GetChanges

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Sarita is developing a windows form application using disconnected architecture.  She has stored data from Categories and Products table in a DataSet object named ds. She has written following code to retrieve the records from Products table based on  a CategoryID selected from a ListBox named lstCategories: ds.Tables["Categories"].Select("CategoryName='" + lstCategories.Text + "'"); What is return type of a Select method in the above statement?**

**1)**. **DataRow**

**2)**. **DataRow[]**

**3)**. DataTable

**4)**. DataTable[]

**Solution** :  
option [2] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Money data type in SQL Server is mapped to \_\_\_\_\_\_\_\_ data type in .NET.**

**1)**. char

**2)**. **decimal**

**3)**. byte

**4)**. int

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which of the following results in an improvement in performance and scalability?**

**1)**. Connection

**2)**. **Connection Pooling**

**3)**. Data Adapter

**4)**. DataRow

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which of the following should be provided in the DataReader to handle rows that  contain columns with large binary or string values? CommandBehaviour.\_\_\_\_**

### **Attempted**

1. CloseConnection

### **Solution**

1. SequentialAccess

2. SchemaOnly

3. CloseConnection

4. KeyInfo

##### Q.**Which of the following DataRowStates has the Current Data Row Version value for DataRow as "Missing" ?**

**1)**. NewRowState

**2)**. Added Row State

**3)**. **Deleted Row State**

**4)**. Updated Row State

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**The DeleteRule and UpdateRule properties of the \_\_\_\_\_\_\_\_\_ define the action to be taken  when the user attempts to delete or update a row in a DataSet table.**

### **Attempted**

1. UniqueConstraint

### **Solution**

1. ForeignKeyConstraint

2. UniqueConstraint

3. PrimaryKeyConstraint

4. None of the above

##### Q.**Refer to the code snippet below and complete the code: SqlConnection cn = new SqlConnection(); cn.ConnectionString = "Server=myServerAddress;Database=myDataBase; User Id=myUsername;Password=myPassword;"; cn.Open(); SqlCommand cmd = new SqlCommand(); cmd.Connection = cn; cmd.CommandType = CommandType.Text; cmd.CommandText = "SELECT \* FROM Person FOR XML AUTO, XMLDATA"; System.Xml.XmlReader xml = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- cn.Close();**

**1)**. cmd.ExecuteReader();

**2)**. **cmd.ExecuteXmlReader();**

**3)**. cmd.ExecuteNonQuery();

**4)**. cmd.ExecuteScalar();

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**XMLNode is an abstract class that represents a single node in an XML document. In ADO.NET, constraints can be applied to DataRow.**

**1)**. **Statement1 is True  
Statement2 is False**

**2)**. Both are false

**3)**. Both are true.

**4)**. Statement1 is False  
Statement2 is True

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Identify true/false statements w.r.t. ADO.NET: 1) To execute a stored procedure in ADO.NET, we need to set CommandType property of DataReader       to StoredProcedure. 2) DataReader can store data from multiple tables.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. **Statement 1 is False  
Statement 2 is False**

**Solution** :  
option [4] is correct

**Attempted** :  
option [3] is attempted

##### Q.**\_\_\_\_\_ is the direct member of DataSet.**

### **Attempted**

1. DataView

### **Solution**

1. DataTable

2. DataRow

3. DataColumn

4. DataView

##### Q.**Which of the following keyword needs to be used to call a method with the async modifier?**

**1)**. **async**

**2)**. **await**

**3)**. awaitable

**4)**. WAITFOR DELAY

**Solution** :  
option [2] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Complete the code snippet to implement Transactions in ADO.NET: SqlConnection connection = new SqlConnection(); connection.ConnectionString = "some string"; connection.Open(); SqlTransaction tran = \_\_\_\_ SqlCommand command1 = new SqlCommand("command text", connection, tran); \_\_\_\_ \_\_\_\_ command2.ExecuteNonQuery();**

### **Attempted**

1. new SqlTransaction();

2. command1.ExecuteNonQuery();

3. SqlCommand command2 = new SqlCommand("command text"

4. tran);

### **Solution**

1. connection.BeginTransaction();

2. SqlCommand command2 = new SqlCommand("command text", connection, tran);

3. command1.ExecuteNonQuery();

4. command2.ExecuteNonQuery();

5. SqlCommand command2 = new SqlCommand("command text", tran);

6. new SqlTransaction();

##### Q.**You are migrating existing mainframe application to .NET application.  You need to connect to DB2 database from your .NET application.  How will you achieve this?**

**1)**. Save the connection string name in the configuration file.   
Use the SqlConnection and SqlCommand classes to create connections and commands .

**2)**. **Save the connection string with provider name in the configuration file.   
Use the generic classes to create connections and commands based on the provider.**

**3)**. Save the connection string name in the configuration file.   
Use the OracleConnection and OracleCommand classes to create connections and commands .

**4)**. **Save the connection string with provider name in the configuration file.   
Use the generic and factory classes to create connections and commands based on the provider.**

**Solution** :  
option [4] is correct

**Attempted** :  
option [2] is attempted

#### Section 3: Winforms

##### Q.**Identify true/false statements w.r.t. Windows Forms: 1) MDI child forms typically share menu from MDI parent form. 2) Docking allows us to glue the control to the specified edge of the form.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**In Windows Forms Application to populate the Combo Box with the values from the database. Which of the following is the correct way to set the \_\_\_\_\_ property after setting the DataSource.**

**1)**. ComboBox1.dataBindings

**2)**. **ComboBox1.DisplayMember**

**3)**. **ComboBox1.DisplayField**

**4)**. None of the above

**Solution** :  
option [2] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Following are the features of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Prompts a message in the dialog box Waits for the user to respond by clicking a button Returns an integer indicating the button clicked**

**1)**. **MessageBox**

**2)**. InputBox

**3)**. Prompt

**4)**. Debug.Trace

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Identify the suitable control to be used in the following scenario: 1) The control should have a scrollbar. 2) More controls should be displayed on user interface in less space.**

**1)**. GroupBox

**2)**. TextBox

**3)**. **Panel**

**4)**. Label

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**What happens when you dock a control to the top of the form?**

**1)**. **The width of a control will change.**

**2)**. The height and width of the form and that of a control will be the same.

**3)**. The height of the form and that of a control will be the same but width of a control will not change.

**4)**. **Both height and width gets changed**

**Solution** :  
option [1] is correct

**Attempted** :  
option [4] is attempted

##### Q.**State True or False: 1.Anchor property is used to ensure that the edges of the control remains in the same position  with respect to the parent container. 2.Menus cannot be added programmatically.**

**1)**. **Statement 1 is correct**

**2)**. Statement 2 is correct

**3)**. Both the statements are correct

**4)**. **Both the statements are not correct**

**Solution** :  
option [1] is correct

**Attempted** :  
option [4] is attempted

Q.**Complete the code so as to get help on colour dialog box:  
  
private void button1\_Click(object sender, System.EventArgs e)  
 {  
    ColorDialog MyDialog = new ColorDialog();  
    // Keeps the user from selecting a custom color.  
    MyDialog.AllowFullOpen = false ;  
     
    // Sets the initial color select to the current text color.  
    MyDialog.Color = textBox1.ForeColor ;  
  
    // Update the text box color if the user clicks OK    
    if (MyDialog.ShowDialog() == DialogResult.OK)  
        textBox1.ForeColor =  MyDialog.Color;  
 }**

**1)**. MyDialog.ShowHelp = false ;

**2)**. **MyDialog.ShowHelp = true ;**

**3)**. **MyDialog.Help = true ;**

**4)**. MyDialog.Help = false ;

**Solution** :  
option [2] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Complete the code to create MDI child form frmchild: Form frmchild=new Form();      \_\_\_\_**

### **Attempted**

1. frmchild.IsMDIContainer=true; frmchild.Show();

### **Solution**

1. frmchild.MDIParent=this; frmchild.Show();

2. frmchild.IsMDIContainer=this; frmchild.Show();

3. frmchild.IsMDIContainer=true; frmchild.Show();

4. frmchild.MDIParent=true; frmchild.Show();

##### Q.**Identify true/false statements w.r.t. Windows Forms: 1) Group Box and Panel are containers that contain other controls. 2) IsMdiParent property of a windows form needs to be set to true to create a MDI parent form.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [1] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Which of the following is/are standard dialog controls?**

**1)**. **File**

**2)**. **Message Box**

**3)**. **InputBox**

**4)**. **Color**

**Solution** :  
option [1,4] are correct

**Attempted** :  
option [1,2,3] are attempted

##### Q.**Complete the code to  populate the Combo Box with the values from the database.  Assume the the Datasource was already set. ComboBox1.\_\_\_\_**

### **Attempted**

1. DisplayMember

### **Solution**

1. DisplayMember

2. DataMember

3. DisplayField

4. DataValue

##### Q.**You can change the size of the display of the PictureBox by setting the \_\_\_\_\_\_\_\_\_\_\_\_\_\_property.**

**1)**. Size

**2)**. **ClientSize**

**3)**. **ImageSize**

**4)**. ImageMode

**Solution** :  
option [2] is correct

**Attempted** :  
option [3] is attempted

##### Q.**State True or False: 1. ColorDialogBox appears on windows form at designtime. 2. Panel control is displayed at runtime.**

**1)**. Statement 1 is True  
Statement 2 is True

**2)**. Statement 1 is True  
Statement 2 is False

**3)**. **Statement 1 is False  
Statement 2 is False**

**4)**. Statement 1 is False  
Statement 2 is True

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Windows Explorer is an example of \_\_\_\_\_\_\_\_\_\_\_**

**1)**. Tunneling

**2)**. **Bubbling**

**3)**. Anchoring

**4)**. **Docking**

**Solution** :  
option [4] is correct

**Attempted** :  
option [2] is attempted

#### Section 4: WPF

##### Q.**Identify true/false statements w.r.t. to data binding in WPF: 1) ElementName property is used to specify name of the source control to be used for data binding. 2) When binding to an object that is not an element, you need not use Path property.**

**1)**. **Statement 1 is True  
Statement 2 is False**

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [1] is attempted

##### Q.**\_\_\_\_\_\_\_ allows you to create a brush that blends two or more colors along a gradient,  allowing a variety of effects.**

**1)**. **LinearGradient Brush**

**2)**. Solid Brush

**3)**. RadialGradientBrush

**4)**. ImageBrush

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**RoutingStrategy needs to be passed as a  parameter needs to be passed to \_\_\_\_ method to  define routing mechanism in WPF?**

### **Attempted**

1. RouteManager.RegisterEvent()

### **Solution**

1. EventManager.RegisterEvent()

2. RouteManager.RegisterEvent()

3. RouteEventManager.RegisterEvent()

4. EventManager.RegisterRouteEvent()

##### Q.**Identify the correct way of binding a Brush Resource called fooBrush as the background for a button?**

**1)**. **<Button Background="{StaticResource fooBrush}" Name="myButton" />**

**2)**. <Button Background="fooBrush" Name="myButton" />

**3)**. <Button Background="{Binding fooBrush}" Name="myButton" />

**4)**. <Button Background="{fooBrush}" Name="myButton" />

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Identify true/false statements w.r.t. to data binding in WPF: 1) Data binding is a relationship that conveys to WPF to extract some information from  a source object and use it to set a property in a target object. 2) The target property is always a dependency property, and it is usually in a WPF element.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. Statement 1 is False  
Statement 2 is True

**3)**. **Statement 1 is True  
Statement 2 is True**

**4)**. Statement 1 is False  
Statement 2 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**State True or False: 1.Tunneling events start with the inner element and bubble to the outer elements. 2.WPF routed events are events that are designed to work well with a tree of elements**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. Both are false

**3)**. **Both are true.**

**4)**. **Statement 2 is True  
Statement 1 is False**

**Solution** :  
option [4] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Complete the xaml tag  for applying style to Button? <Button  \_\_\_\_/>**

### **Attempted**

1. Style="{StaticResource ButtonStyle1}"

### **Solution**

1. Style="{StaticResource ButtonStyle1}"

2. Style:"{StaticResource ButtonStyle1}"

3. Style:"[StaticResource ButtonStyle1]"

4. Style="StaticResource ButtonStyle1"

##### Q.**Consider the code given below for creating a dependency property: public static readonly DependencyProperty StateProperty =  DependencyProperty.Register("State" , typeof(Boolean) , typeof(MyControl)); What does MyControl refer?**

**1)**. Built in WPF type

**2)**. **The name of the Owner class in which the Dependency property is defined**

**3)**. Type of the dependency property

**4)**. None of the above

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Using resource concept, if you want to assign the Font size to a Text Box,  what is the correct option to do the same?**

**1)**. **<s:Double x:Key="LargeFont">  
             36  
          </s:Double>  
         <s:Double x:Key="SmallFont">  
              10  
          </s:Double>  
  
 <TextBox>  
        <TextBox.FontSize>  
            <StaticResource  
   ResourceKey="LargeFont" />  
        </TextBox.FontSize>  
        Hello World  
 </TextBox>**

**2)**. **<TextBox>  
        <TextBox.FontSize>  
            <StaticResource  
   ResourceKey="LargeFont" />  
        </TextBox.FontSize>  
        Hello World  
 </TextBox>**

**3)**. **<Grid.Resources>  
          <s:Double x:Key="LargeFont">  
             36  
          </s:Double>  
         <s:Double x:Key="SmallFont">  
              10  
          </s:Double>  
 </Grid.Resources>  
  
<Grid>  
  
 <TextBox>  
        <TextBox.FontSize>  
            <StaticResource  
   ResourceKey="LargeFont" />  
        </TextBox.FontSize>  
        Hello World  
 </TextBox>  
</Grid>**

**4)**. **<TextBox>  
        <TextBox.FontSize>  
            <DynamicResource  
   ResourceKey="LargeFont" />  
        </TextBox.FontSize>  
        Hello World  
 </TextBox>**

**Solution** :  
option [2,4] are correct

**Attempted** :  
option [1,3] are attempted

##### Q.**\_\_\_\_\_\_ property provides an enumerated value that tells you what type of routing the Click event uses.**

**1)**. **RoutingStrategy**

**2)**. Bubbling

**3)**. **Routed**

**4)**. Tunneling

**Solution** :  
option [1] is correct

**Attempted** :  
option [3] is attempted

##### Q.**The following code has been written to create a style in WPF: <Style x:Key="BigFontButtonStyle">       <Setter Property="Control.FontFamily" Value="Times New Roman" />       <Setter Property="Control.FontSize" Value="18" />       <Setter Property="Control.FontWeight" Value="Bold" /> </Style> Which of the following markup extension will be used for applying this style to any WPF control?**

**1)**. Binding

**2)**. ElementName

**3)**. Resource

**4)**. **StaticResource**

**Solution** :  
option [4] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Which of the following needs to be set to an ADO.NET DataTable object that contains  the data you want to bind?**

**1)**. **DataContext**

**2)**. ItemsSource

**3)**. DataMember

**4)**. Path

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Which of the following types of Brushes are available in WPF?**

**1)**. **SolidBrush**

**2)**. TransparentBrush

**3)**. **LinearGradientBrush**

**4)**. **FilledBrush**

**Solution** :  
option [1,3] are correct

**Attempted** :  
option [1,3,4] are attempted

##### Q.**Which transform is useful if you want to draw the same shape in a different angle?**

**1)**. Translate Transform

**2)**. **RotateTransform**

**3)**. ScaleTransform

**4)**. SkewTransform

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Consider a WPF Application that has a XAML window with listBox control named productListBox. The following code has been written to create a collection of Products:  ProductCollection products= new ProductCollection();  products.Add(new Product(){Name = "product 1"});  products.Add(new Product(){Name = "products 2"});  products.Add(new Product(){Name = "products 3"});  productListBox.DataContext = products; How will you configure the ListBox control to display the value of the Name property of each  Product instance in the collection. Which XAML content should you use?**

**1)**. **Name="productListBox"   
ItemsSource="{Binding ElementName=Name}"/>**

**2)**. Name="productListBox"   
ItemsSource="{Binding Source=Product.Name}"/>

**3)**.  **Name="productListBox"   
ItemsSource="{Binding Path=Name}"/>**

**4)**.   
Name="productListBox"   
ItemsSource="{Binding Source=Product}"/>

**Solution** :  
option [3] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Vicky is developing a WPF application. He has written the following code to fetch the data  from Employee table into a List<Employee>.  Which of this code snippet will display all the records from List<Employee> into a ListBox control  named ListBox1? List<Employee> empList = new List<Employee>()              {                 new Employee{EmpId=1001,FirstName="Scott",LastName="Guthrie"},                 new Employee{EmpId=1002,FirstName="Bill",LastName="Gates"}             }; \_\_\_\_**

### **Attempted**

1. ListBox1.ItemsSource=empList;

### **Solution**

1. ListBox1.ItemsSource=empList;

2. ListBox1.DataSource=empList;

3. ListBox1.DataContext=empList;

4. ListBox1.DataMember=empList;

##### Q.**You have created a series of customized Brush objects to create a common color scheme for  every window in each of several applications in your company.  The Brush objects have been implemented as resources.  What is the best place to define these resources?**

**1)**. In the Resources collection of each control that needs them

**2)**. In the Resources collection of each window that needs them

**3)**. **In the Application.Resources collection**

**4)**. **In a separate resource dictionary**

**Solution** :  
option [4] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Which of the following binding direction will update the target if source changes?**

**1)**. **OneWay**

**2)**. **TwoWay**

**3)**. OneTime

**4)**. OneWayToSource

**Solution** :  
option [1] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Identify the True statements.**

**1)**. **In WPF data binding, target is always a dependency property.**

**2)**. In WPF data binding, target is always an attached property.

**3)**. **In WPF data binding, source may or may not be dependency property.**

**4)**. **In WPF data binding, target must be an attached property.**

**Solution** :  
option [1,3] are correct

**Attempted** :  
option [1,3,4] are attempted

##### Q.**The following code has been written to create a style in WPF: <Style x:Key="BigFontButton">       <Style.Setters>         <Setter Property="Control.FontFamily" Value="Times New Roman" />         <Setter Property="Control.FontSize" Value="18" />           </Style.Setters>       <Style.Triggers>         <Trigger Property="Control.IsFocused" Value="True">           <Setter Property="Control.Foreground" Value="DarkRed" />         </Trigger>       </Style.Triggers>     </Style> The trigger defined in above code is using which of the following features of WPF?**

**1)**. AttachedProperty

**2)**. **ChangeNotification**

**3)**. **Content Control**

**4)**. Layout Panels

**Solution** :  
option [2] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Identify true/false statements w.r.t. to event handling in WPF: 1) Bubbling event travels down the containment hierarchy. 2) Tunneling event occurs after bubbling event.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. **Statement 1 is False  
Statement 2 is True**

**3)**. Statement 1 is True  
Statement 2 is True

**4)**. **Statement 1 is False  
Statement 2 is False**

**Solution** :  
option [4] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Using resource concept, if you want to assign the Font size to a Text Box,  what is the correct option to do the same?**

**1)**. **<TextBox FontSize="{Static ResourceKey largefont}" />**

**2)**. **<TextBox FontSize="{Static Resource largefont}" />**

**3)**. <TextBox>  
<TextBox.FontSize>  
<Resource  
Key="LargeFont" />  
</TextBox.FontSize>  
Hello World  
</TextBox>

**4)**. **<TextBox>  
<TextBox.FontSize>  
<StaticResource  
ResourceKey="LargeFont" />  
</TextBox.FontSize>  
Hello World  
</TextBox>**

**Solution** :  
option [2,4] are correct

**Attempted** :  
option [1,4] are attempted

##### Q.**Which of the following Trigger type will help in creating a trigger on a Non Dependency Property?**

**1)**. We cannot create triggers on non dependency property

**2)**. **Using a property trigger and setting IsPropertyDependency as false**

**3)**. **Using DataTrigger**

**4)**. By Attaching a Property trigger through C# code

**Solution** :  
option [3] is correct

**Attempted** :  
option [2] is attempted

##### Q.**A code snippet has been written for Styles as given below. <Style TargetType="{x:Type Label}"> <Setter Property="Foreground" Value="Blue"/> </Style> You need to ensure that the style is applied to all labels within the window.  What should you do?**

**1)**. Add the style to the <ResourceDictionary> section of the ResourceDictionary.xaml file.

**2)**. **Add the style to the <Window.Resources> section of the main window.**

**3)**. Add the style to the <Application.Resources> section of the App.xaml file.

**4)**. Add the style to the <Application.Properties> section of the App.xaml file.

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which property of DockPanel is used to specify that last control in the dock panel will occupy  the remaining space in the container?**

**1)**. LastChild

**2)**. **LastChildFill**

**3)**. RemainingSpace

**4)**. Dock

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**The following code has been written to draw a ellipse in WPF: <Ellipse Fill="Yellow" Stroke="Blue"  Height="50" Width="100" Margin="5" HorizontalAlignment="Left"></Ellipse> What is the use of Stroke attribute in the above code?**

**1)**. The Stroke attribute is used to paint everything inside borders of the ellipse.

**2)**. **The Stroke attribute is used to paint the edges of the ellipse.**

**3)**. The Stroke attribute is used to paint everything inside borders and edges of the ellipse.

**4)**. Stroke is not valid attribute of Ellipse tag.

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which of the following is attached property of Canvas?**

**1)**. **Orientation**

**2)**. HorizontalAlignment

**3)**. VerticalAlignment

**4)**. **Top**

**Solution** :  
option [4] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Which of the following is used in Live Sorting and LiveSearching?**

**1)**. **INotifyPropertyChanged**

**2)**. Canvas

**3)**. DependencyProperty

**4)**. **ObservableCollection**

**Solution** :  
option [4] is correct

**Attempted** :  
option [1] is attempted

##### Q.**State True or False. 1.Triggers define a list of setters that are executed if the specified condition is fulfilled. 2.Dependency Property depends on external inputs for its value.**

**1)**. Statement 1 is True  
Statement 2 is False

**2)**. **Both are false**

**3)**. **Both are true.**

**4)**. Statement 2 is True  
Statement 1 is False

**Solution** :  
option [3] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which of the following property is used to specify the distance between controls in a WPF container?**

**1)**. **Margin**

**2)**. HorizontalAlignment

**3)**. VerticalAlignment

**4)**. Width

**Solution** :  
option [1] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Which method of the NavigationService class is used to transfer user to another page in WPF application?**

**1)**. NavigateUri

**2)**. **NavigateUrl**

**3)**. **Navigate**

**4)**. Transfer

**Solution** :  
option [3] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which of the following interface is used in WPF to propagate changes from source to destination  if source of a data binding expression is not a dependency property?**

**1)**. IDependencyProperty

**2)**. **INotifyPropertyChanged**

**3)**. IDisposable

**4)**. IPropertyChanged

**Solution** :  
option [2] is correct

**Attempted** :  
option [2] is attempted

##### Q.**Which of the following property of a slider can be used to specify location or position of  a tick marks that a slider displays?**

**1)**. Delay

**2)**. Interval

**3)**. **TickPlacement**

**4)**. IsSnapToTickEnabled

**Solution** :  
option [3] is correct

**Attempted** :  
option [3] is attempted

##### Q.**Which layout panel would be the best choice for a user interface that requires evenly  spaced controls laid out in a regular pattern?**

**1)**. **Grid**

**2)**. Canvas

**3)**. Wrap Panel

**4)**. **Uniform Grid**

**Solution** :  
option [4] is correct

**Attempted** :  
option [1] is attempted

##### Q.**\_\_\_\_\_\_\_\_\_allows an event to originate in one element but be raised by another one.**

**1)**. Dependency Properties

**2)**. Attached Properties

**3)**. .NET Events

**4)**. **Event Routing**

**Solution** :  
option [4] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Which of the following property needs to be added to Binding markup extension to introduce  time interval of 2 secs before the binding is done ?**

**1)**. ElementName

**2)**. Path

**3)**. Value

**4)**. **Delay**

**Solution** :  
option [4] is correct

**Attempted** :  
option [4] is attempted

##### Q.**Select the correct Code Snippet which will automatically make the Slider Control thumb   moved to the closest tick mark and provide the integer value?**

**1)**. **<Slider Height="Auto" Width="Auto" TickPlacement="Auto"/>**

**2)**. **<Slider Height="Auto" Width="Auto" IsSnapToTickEnabled="True"/>**

**3)**. <Slider Height="Auto" Width="Auto" IsSnapToTickEnabled="False"/>

**4)**. <Slider Height="Auto" Width="Auto" TickPlacement="Both"/>

**Solution** :  
option [2] is correct

**Attempted** :  
option [1] is attempted

##### Q.**\_\_\_\_\_\_\_ Shifts the coordinate system of your object by the horizontal and vertical amounts indicated  by the X and Y properties,respectively.**

**1)**. **SkewTransform**

**2)**. RotateTransform

**3)**. ScaleTransform

**4)**. **TranslateTransform**

**Solution** :  
option [4] is correct

**Attempted** :  
option [1] is attempted

##### Q.**Which namespace is used for Linq to XML?**

**1)**. **System.Linq**

**2)**. System.Xml

**3)**. **System.Xml.Linq**

**4)**. System.IO

**Solution** :  
option [3] is correct

**Attempted** :  
option [1] is attempted