

(برج) در (ه، ط، ن، ق)

1) Which of the following represents a type of business problem?

- a) Communication.
- b) Data Access.
- c) Logic.
- d) All of the above.

2) Determine if the following statement qualifies as a business rule in a computer application.

If the payment receipt date is less than 10 days from the invoice date, discount the amount by 2 percent.

- a) Qualifies as a business rule.
- b) Does not qualify as a business rule.

3) You designed a database where users access the data from a server. A front-end application is designed as the GUI, allowing users to view and manipulate data. This front end sends requests to a back-end application residing on the server, which can handle requests from multiple users simultaneously. Processing is shared between the front and back end applications. What kind of solution have you designed?

- a) Standalone
- b) Centralized
- c) Distributed
- d) Static

4) You are creating an ASP.NET Web site. The site has a master page named Custom.master. The code-behind file for Custom.master contains the following code segment.

```
Partial Public Class Custom Inherits System.Web.UI.MasterPage
Public Property Region As String
Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs) Handles
Me.Load
End Sub
End Class
```

You create a new ASP.NET page and specify Custom.master as its master page. You add a Label control named lblRegion to the new page. You need to display the value of the master pages Region property in lblRegion. What should you do?

- a) Add the following code segment to the Page_Load method of the page code-behind file. Dim custom As Custom = Me.Parent lblRegion.Text = custom.Region
- b) Add the following code segment to the Page_Load method of the page code-behind file. Dim custom As Custom = Me.Master lblRegion.Text = custom.Region

- c) Add the following code segment to the Page_Load method of the Custom.Master.vb code-behind file. Dim lblRegion As Label = Page.FindControl("lblRegion") lblRegion.Text = Me.Region
- d) Add the following code segment to the Page_Load method of the Custom.Master.vb code-behind file. Dim lblRegion As Label = Master.FindControl("lblRegion") lblRegion.Text = Me.Region

5) You are developing an ASP.NET Web application. Application data is stored in a Microsoft SQL Server database. You configure a connection string named cnnContoso. The application must cache the data that is returned from the database by using this connection string. You need to ensure that the application checks the database every 10 seconds. What should you do?

- a) Add the following configuration to the <system.web> section of the web.config file.

```
<outputCacheSettings>
  <outputCacheProfiles>
    <add name="cnnContoso"
      duration="10"/>
  </outputCacheProfiles>
</outputCacheSettings>
</caching>
```
- b) Add the following configuration to the <system.web> section of the web.config file.

```
<sqlCacheDependency enabled="true" pollTime="10000">
  <databases>
    <add name="ContosoDatabase"
      connectionStringName="cnnContoso" />
  </databases>
</sqlCacheDependency>
</caching>
```
- c) Add the following @ Page directive to pages that query the database.

```
<%@ OutputCache Duration="10" VaryByParam="cnnContoso" %>
```
- d) Add the following @ Page directive to pages that query the database.

```
<%@ OutputCache Duration="10000" VaryByParam="cnnContoso" %>
```

6) Which of the following statement about objects is true?

- a) One object is used to create one class.
- b) One class is used to create many objects.
- c) One object is used to create many classes.
- d) One class is used to create one object.

7) What Are the Different Types of Mobile Apps? And How Do You Choose?

- 1- **Native apps** are created for one specific platform or operating system.
- 2- **Web apps** are responsive versions of websites that can work on any mobile device or OS because they're delivered using a mobile browser.
- 3- **Hybrid apps** are combinations of both native and web apps, but wrapped within a native app, giving it the ability to have its own icon or be downloaded from an app store.
- 4- **Cross-Platform Apps** are those which run on multiple platforms. They have a much broader scope than hybrid apps and serve as a mid-mile solution between a native app and a hybrid app.

8) list five of Mobile App Development Frameworks?

* Flutter, React Native, Ionic, Xamarin, Native Script, Apache Cordova, Framework7, JQuery Mobile.

9) How to Increase Performance of DB?

- I. Improve indexing strategies
- II. Partitioning
- III. Evaluate connection capacity.
- IV. Optimize queries.
- V. Clustering

10) What is different between Where and Having clause in SQL?

- i. Use WHERE prior to GROUP BY and HAVING after GROUP BY. The
- ii. Where clause acts as a pre filter where as Having as a post filter.

11) Can you explain what ODBC is?

"Open Database Connectivity" is a method used by application front ends when they're communicating with a database backend.

12) What process would you follow to troubleshoot database problems?

- i. Gather facts and information
- ii. Test in a variety of environments and machines
- iii. Review the logs and traces.
- iv. Develop a plan for testing
- v. Backup database

13) What is a database and a data warehouse?

- i. A database stores the current data required to power an application.
- ii. data warehouse stores current and historical data for one or more systems in a predefined and fixed schema for the purpose of analyzing the data.

14) What is OLTP and OLAP?

- i. Online transaction processing (OLTP) captures, stores, and processes data from transactions in real time.
- ii. Online analytical processing (OLAP) uses complex queries to analyze aggregated historical data from OLTP systems.