**PRUEBA DE CONOCIEMIENTO C# , WCF Y MVC**

**Version 1.1**

Pre-requisitos para la prueba

* Visual Studio 2019 Comunity Edition (Si no se tiene descargar [aqui](https://www.visualstudio.com/downloads/))
* SQL Express (Si no se tiene descargar [aqui](https://www.microsoft.com/en-us/sql-server/sql-server-editions-express))
* Management Studio (Si no se tiene descargar [aquí](https://msdn.microsoft.com/es-co/library/mt238290.aspx))

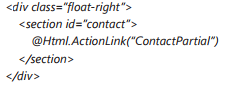
**PARTE A – Conocimientos Básicos**

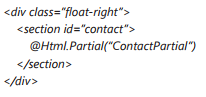
**Instrucciones:**

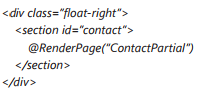
* De solución a las preguntas en la tabla de respuesta.
* Tenga en cuenta que en algunas preguntas puede haber entre dos o más respuestas correctas.
* Verifique antes de enviar.

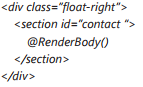
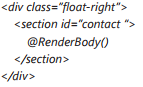
|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TABLA DE RESPUESTAS** | | | | | | | | | |
| **1.** | **2.** | **3.** | **4.** | **5.** | **6.** | **7.** | **8.** | **9.** | **10.** |
| **a** | **b** | **2, 3** | **2** | **3** | **b** | **c, e** | **3** | **3** | **c** |
| **11.** | **12.** | **13.** | **14.** | **15.** | **16.** | **17.** | **18.** | **19.** | **20.** |
| **3** | **a** | **6** | **a** | **4** | **3** | **B** | **1** | **a** | **1** |
| **21.** |  |  |  |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

1. You are creating a complex query that doesn’t require any particular order and you want to run it in parallel. Which method should you use?
2. AsParallel
3. AsSequential
4. AsOrdered
5. WithDegreeOfParallelism
6. You need to implement cancellation for a long running task. Which object do you pass to the task?
7. CancellationTokenSource
8. CancellationToken
9. Boolean isCancelled variable
10. Volatile
11. You need to iterate over a collection in which you know the number of items. You need to remove certain items from the collection. Which statement do you use?
    1. switch
    2. foreach
    3. for
    4. goto
12. You have declared an event on your class, and you want outside users of your class to raise this event. What do you do?
    1. Make the event public.
    2. Add a public method to your class that raises the event.
    3. Use a public delegate instead of an event.
    4. Use a custom event accessor to give access to outside users.
13. Your code catches an IOException when a file cannot be accessed. You want to give more information to the caller of your code. What do you do?
    1. Change the message of the exception and rethrow the exception.
    2. Throw a new exception with extra information that has the IOException as InnerException.
    3. Throw a new exception with more detailed info.
    4. Use throw to rethrow the exception and save the call stack.
14. Suppose you want to sort the Recipe class in question 6 by any of the properties MainIngredient, TotalTime, or CostPerPerson. In that case, which of the following interfaces would probably be most useful?
15. IDisposable
16. IComparable
17. IComparer
18. ISortable
19. In a multithreaded application how would you increment a variable called counter in a lock free manner? Choose all that apply.
20. lock(counter){counter++;}
21. counter++;
22. Interlocked.Add(ref counter, 1);
23. Interlocked.Increment (counter);
24. Interlocked.Increment (ref counter);
25. Which code can create a lambda expression?
26. delegate x = x => 5 + 5;
27. delegate MySub(double x); MySub ms = delegate(double y) { y \* y; }
28. x => x \* x;
29. delegate MySub(); MySub ms = x \* x;
30. Which collection would you use if you need to quickly find an element by its key rather than its index?
31. Dictionary
32. List
33. SortedList
34. Queue
35. Which ADO.NET object is a fully traversable cursor and is disconnected from the database?
36. DBDataReader
37. DataSet
38. DataTable
39. DataAdapter
40. Which clause orders the state and then the city?
    1. orderby h.State  orderby h.City
    2. orderby h.State thenby h.City
    3. orderby h.State, h.City
    4. orderby h.State, thenby h.City
41. Which of the following regular expressions matches license plate values that must include three uppercase letters followed by a space and three digits, or three digits followed by a space and three uppercase letters?
42. (^\d{3} [A-Z]{3}$)|(^[A-Z]{3} \d{3}$)
43. ^\d{3} [A-Z]{3} [A-Z]{3} \d{3}$
44. ^\w{3} \d{3}|\d{3} \w{3}$
45. ^(\d{3} [A-Z]{3})?$
46. What describes a strong name assembly?
    1. Name
    2. Version
    3. Public key token
    4. Culture
    5. Processor Architecture
    6. All the above
47. You are designing an application in which a section of the main page will be populated by content from a third-party provider. You do not have control over the responsiveness of the client or how much information will be returned with each request. The call is to a RESTful service and will return the information formatted in Extensible Markup Language (XML). What is the best way to implement this application?
    1. Design a model that handles the data call to populate the model. Create a partial view containing only this display area and put an asynchronous service call that returns this model in the partial view controller.
    2. Put a synchronous service call into the main page controller.
    3. Create a partial view containing only this display area and put a synchronous service call in the partial view controller.
    4. Create a partial view containing only this display area and put an asynchronous service call in the partial view controller.
48. You are designing an ASP.NET MVC 4 application that uses an Oracle database for persistence. What session configuration choices enable you to deploy your application on a web farm? (Choose all that apply.)
    1. InProc
    2. SQLServer
    3. StateServer
    4. Custom session provider
49. You are designing a web application. You want to create a certain look and feel while reusing styles across pages as much as possible. How should you handle styles?
    1. Use only one or two styles throughout your application to simplify maintenance.
    2. Use a specific (unique) style for every element.
    3. Use general styles for common elements and specific styles for elements that are unique.
    4. Use inline styling.
50. You are creating an ASP.NET MVC web application. Within the application, you have created a partial view for contact email and phone number. Which code segment should you use to display the partial view on the main page?

 A. 

B. 

C. 

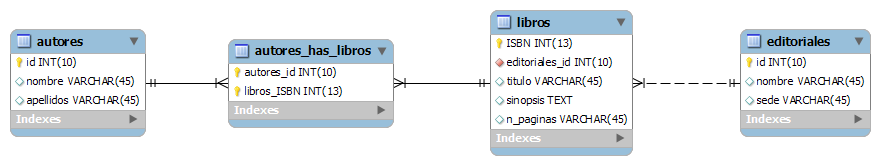
D. 

1. What are common methods for detecting the type of browser running on a client? (Choose all that apply.)
   1. Use JavaScript to query for the userAgent header.
   2. Use the window.addEventListener method.
   3. Use the viewport tag.
   4. Use the DisplayMode provider
2. You are creating an ASP.NET MVC web application, and you decide to create a new layout for mobile devices with relatively small screens. Which @media query should you create or modify to accomplish the task? (Choose all that apply.)
   1. @media (max-width:768px)
   2. @media (max-width:478px) and (orientation:portrait)
   3. @media (min-width:768px) and (orientation:portrait)
   4. @media (min-width:1200px)
3. You are creating an ASP.NET MVC website and you want to replace a <h2>hello</h2>tag within the view with custom resources you have created. What should you use?
   1. <h2>@mvcapp.Resources.Home.Index.Heading</h2>
   2. <h2 div=”resource”>Hello</h2>
   3. <h2 class=”resource”>Hello</h2>
   4. <h2>@mvcapp.Resources.Home.Index.Heading Hello</h2>
4. You are developing an ASP.NET MVC application. You noticed a bug on the DVD controller of the application. You want to ignore the DVD pages until the bug is fixed. What should you do?
   1. Add route.SetItem(route.Count, “dvd/”); to the RegisterRoute method.
   2. Add route.IgnoreRoute(“dvd/”); to the RegisterRoute method.
   3. Add route.Insert(route.Count,“dvd/”); to the RegisterRoute method.
   4. Add route.Remove(“dvd/”); to the RegisterRoute method.

**PARTE B – Practica**

Realice una sitio Web usando .NET Core 3.1 o superior, la conexión a través de entity Framework con base de datos sql server. Tenga en cuenta los siguientes puntos:

1. Modelo Entidad Relación



1. Arquitectura con N Capas (N-Tier) o Orientada a Dominios
2. Usar camelCase para la codificación
3. Comentariado
4. Pruebas unitarias nUnit
5. Manejar un Layout
6. Crear una página donde aparezca el listado de las editoriales
7. Crear una página donde se pueda crear una editorial
8. Crear una página donde se pueda crear un Libro

**CUALQUIER MEJORA SERA TENIDO EN CUENTA EN LA EVALUACIÓN**

Crear un backup de la base de datos y el código en un archivo .zip, el nombre del archivo debe ser su nombre.