

**CSC496/CSC584 Complexed System/Web Technology  
Exam Review Sheet**

**The exam consists of 25-30 multiple-choice problems. Each is worth 3 points. This list is subject to changes.**

Please study the material and understand the meanings of the following terms/concepts/features:

1. ASP.NET MVC - <https://docs.microsoft.com/en-us/aspnet/core/mvc/overview>  
This web page contains many topics that will be listed also below. Please review all of the terms mentioned in this web page.
2. Dependency Injection - <https://docs.microsoft.com/en-us/aspnet/core/mvc/controllers/dependency-injection>  
and  
<https://docs.microsoft.com/en-us/aspnet/core/fundamentals/dependency-injection>
  - a. What is it?
  - b. Types?
3. Inversion of Control -  
[https://en.wikipedia.org/wiki/Inversion\\_of\\_control](https://en.wikipedia.org/wiki/Inversion_of_control)
  - a. What is it?
  - b. How can it be achieved?
4. Model Binding -  
<https://docs.microsoft.com/en-us/aspnet/core/mvc/models/model-binding>
  - a. What is it?
5. Routing  
<https://docs.microsoft.com/en-us/aspnet/core/fundamentals/routing>
  - a. Conventional Routing
  - b. Attribute Routing
6. Razor Pages –  
<https://docs.microsoft.com/en-us/aspnet/core/tutorials/razor-pages/razor-pages-start>
  - a. Compare Razor Pages with Code Behind in ASP.NET (NOT ASP.NET Core)
  - b. Razor Pages: Pros and Cons
7. RESTful Web Services and Web API–  
<https://docs.microsoft.com/en-us/aspnet/core/tutorials/first-web-api>
  - a. End Point
  - b. CRUD
  - c. JSON
  - d. GET (Read), POST (CREATE), PUT (UPDATE), and DELETE(DELETE)
  - e. Request Body, Response Body
8. All projects – the concepts involved, examples included but are not limited to the following:
  - a. How does a program get started?
  - b. How does a database get registered in an App?

- c. How does a controller find a view?
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- 9. C# Programming Guide –  
<https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/>
    - a. Operators (<https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/statements-expressions-operators/overloadable-operators>)
    - b. Classes
    - c. Interfaces
    - d. Delegates
    - e. Iterators
    - f. Lambda Expressions
  - 10. MVC Project Files
    - a. appsettings.json
    - b. Startup.cs
    - c. Program.cs
    - d. ConfigurationServices in startup.cs
    - e. Middleware in startup.cs
  - 11. Regular Expression –  
<https://docs.microsoft.com/en-us/aspnet/core/tutorials/first-mvc-app/validation>
    - a. Data Annotation
    - b. Required - keyword
  - 12. Tools used in your projects
    - a. Dotnet
    - b. Migration command
    - c. Postman
  - 13. Visual Studio 2017 – Only related to features used in our projects
    - a. Solution Explorer
    - b. Database Explorer
    - c. Build, Rebuild, Clear All
    - d. Execution
    - e. NuGet Package Management