

English questions

1. What is the most basic workflow/order when working with git?
 - a. Clone; Code changes; Add to stage; Stash
 - b. Fetch; Push; Code changes; Add to stage; Commit
 - ☒ c. Clone; Code changes; Add to stage; Commit; Push
 - d. Merge; Code changes; Commit; Pull
2. In git, what are the possible places where code can be? Choose the most appropriate answer
 - a. Developer machine; Remote repository
 - b. Stage/Stash; Working directory; Remote repository
 - c. Remote repository; Local repository; Stash; Working directory
 - ☒ d. Remote repository; Local repository; Index/Stage; Working directory; Stash
3. About Interfaces in C#, select all that apply
 - ☒ a. Interfaces specify a contract between two parties
 - b. Interface members can have access modifiers (public, private, protected) applied to them.
 - c. Interfaces are the same as abstract classes
 - ☒ d. Classes implementing an interface must implement all members of it
4. What happens to the input variable “i” in the following call:

```
int i = 20; foo(ref i);
```

```
void foo(ref int i)
{ int j = 3; i = j;
  i += 10;
}
```

- a. i is 23
 - b. i is 20
 - c. i is not changed
 - d. i is multiple of 10
 - ☒ e. i is 13
5. What is the best way to pass a variable number of parameters to a method using a framework/language feature?
 - a. method(int param1, int param2, int param3, int param4, int moreParams...)
 - ☒ b. method(int param1, params int[] moreParams)
 - c. method(params int[] params, int param2)
 - d. method(int param1, List<int> parameters)

6. Which of the following Statement is the correct form of rethrowing the original Exception without losing the stack trace?

```
Try
{
    // some code }
Catch (exception ex)
{
    // log exception and rethrow
}
```

- a. throw ex;
- ☒ b. throw;
- c. throw new Exception();
- d. rethrow Exception();
- e. rethrow new Exception();

7. Which constructs can be used to ensure that a certain section of code always runs regardless if an exception is thrown or not. More than one option can be chosen.

- ☒ a. try/finally
- b. try/catch
- ☒ c. try/catch/finally
- d. catch/finally
- e. try/final

8. What is the result of the following code?

```
public static void Main()
{
    Go();
    Console.Read();
} static void Go()
{ for (int i = 0; i < 3; i++)
    Console.Write ("C");
    Console.Write ("#");

    Console.Write("dot");
}
```

- ☒ a. CCC#dot
- b. C#C#C#dot
- c. compilation error
- d. CCCdot

9. Which of the following best describes some of the basic members of a VueJS application or component?

- a. data, methods, computed, watch, attributes
- b. methods, attributes, class, events
- c. attributes, data, lifecycle hooks, methods, container
- ☒ d. data, methods, lifecycle hooks (created, mounted, etc), computed

10. Which of the following exists in a VueJS component, but doesn't exist in a VueJS application?

- a. event
- ☒ b. props
- c. attribs
- d. filters

11. Which type of JOIN is used to return rows that do not have matching values?

- a. INNER JOIN
- ☒ b. RIGHT and LEFT JOIN
- c. EQUI JOIN
- d. All of the above

12. What is true about database indexes? Select all that apply.

- a. Indexes are synonyms of a column in a table.
- ☒ b. Indexes improve the speed of data retrieval operations on a table.
- ☒ c. Indexes are special lookup tables that will be used by the database search engine.
- d. None of the above

13. Evaluate the SQL statement:

```
SELECT
    a.emp_name,
    a.sal,
    a.dept_id,
    b.maxsal
FROM employees a,
    (SELECT dept_id,
        MAX(sal) maxsal
     FROM employees
     GROUP BY dept_id) b
WHERE a.dept_id = b.dept_id
      AND a.sal < b.maxsal;
```

- a. The statement gives an error at line 1.
- b. The statement gives an error at line 6.
- c. The statement produces the employee name, salary, department ID, and maximum salary earned in the employee department for all departments that pay less salary than the maximum salary paid in the company.
- d. The statement produces the employee name, salary, department ID, and maximum salary earned in the
- ☒ employee department for all employees who earn less than the maximum salary in their department.

14. At its core, Kubernetes is a platform for?

- a. Packaging software in containers
- b. Provisioning machines
- ☒ c. Running and scheduling container applications on a cluster
- d. None of the above

15. What is the basic operational unit of Kubernetes?

- a. Task
- ☒ b. Pod
- c. Node
- d. Container

16. Docker provides the ability to package and run an application in a loosely isolated environment called?

- a. Cloud
- b. Storage
- ☒ c. Container
- d. Database

17. Which of the following is a text document that contains all the instruction commands to assemble an image automatically?
- a. Docker Cloud
 - ☒ b. Dockerfile
 - c. Docker Kitematic
 - d. Docker Compose
18. Which one of the following types of cloud computing provides the resources or services such as the virtual infrastructure, virtual machines, virtual storage, and several other hardware assets?
- ☒ a. IaaS
 - b. SaaS
 - c. PaaS
 - d. All of the mentioned
19. The DevOps movement is an outgrowth of which software development methodology?
- a. Scrum
 - b. Extreme Programming
 - ☒ c. Agile
 - d. TDD and MDD
20. In model-view-controller (MVC) architecture, model defines the...?
- a. Data access layer
 - ☒ b. Business logic layer
 - c. Presentation layer
 - d. Interface layer
21. By Default, ASP.NET Web API uses the two rules to bind the parameter:
- ☒ a. FromUri and FromBody
 - b. FromBody and FromQuery
 - c. FromQuery and FromForm
 - d. FromHeader and FromUri
22. When it comes to dependency injection, select all that apply.
- ☒ a. A class can resolve the external dependencies using the DI container at any time
 - b. The DI container configuration/mappings cannot be done via configuration file
 - ☒ c. A class can receive its external dependencies as parameters in the class constructor
 - d. The DI container can only be configured via configuration file

23. Given the code below, we want to write a Unit Test that tests the method DoSomethingElse. Notice that the class MyClass requires an external dependency, which we want to just ignore in our test. How to pass the dependency to the class constructor? Select the best and most simple option.

```
public interface IDummyInterface
{
    void DoSomething();
}
public class MyClass
{
    private readonly IDummyInterface di;

    public MyClass(IDummyInterface di)
    {
        this.di = di;
    }
    public void DoSomethingElse()
    {
        // some code...

        di.DoSomething();

        // some code...
    }
}
```

- a. Pass null to MyClass constructor
 - ☒ b. Create a mock of the IDummyInterface interface and pass to the MyClass constructor
 - c. Create a dummy class that implements IDummyInterface and pass an instance of this class to the MyClass constructor
 - d. It is impossible to unit test this scenario
24. In DDD (Domain-driven design), what is it called a bundle of related objects which are treated from the client perspective as a single unit exposing a root object?
- a. Entity
 - b. Value Object
 - ☒ c. Aggregate
 - d. Repository

25. What is the result of the following JavaScript code?

```
var valueOne = 3;
var valueTwo = "3";

if (valueOne === valueTwo) { console.log("ValueOne and ValueTwo are the same"); }
else { console.log("ValueOne and ValueTwo are NOT the same"); }
```

- a. ValueOne and ValueTwo are the same
- ☒ b. ValueOne and ValueTwo are NOT the same
- c. Compilation error
- d. Exception