Q-1 What are the advantages for developing Microservices? Select all answers that apply.

1. Creating manageable services that developers can understand, develop and maintain
2. If a service becomes a performance bottleneck, you can increase the number of instances running
3. Is is easy to decompose your monolithic application into a microservice architecture
4. It is easier to introduce new technologies in a properly designed microservice architecture

Ans: A,B and D

Q-2 Which of the follwoing statement about Cloud Foundry is false?

1. Cloud Foundry is sometimes called an Elastic Runtime because it can expand or contract its usage of resources
2. Cloud Foundry is a closed software project and developers cannot contribute to its development
3. Cloud Foundry assists developers who use the 12 Factor Methodology
4. Cloud Foundry supports multiple infrastructures as service environments
5. Cloud Foundry uses BOSH to implement its lifecycle management features

Ans: **B**

**Q-3** Which cf command will developers use when there are code changes that need to be deployed?

1. cf restart
2. cf restage
3. cf deploy
4. cf push

Ans D

Q-4 Which statement(s) about deploying an application is(are) true? Select all answers that apply.

1. You do not need a manifest file, but it sure makes deploying applications easier
2. You always need a manifest file to deploy your web application
3. You can restage your application without redeploying the code
4. You can restart your application without any downtime in all cases

Ans: A,C

Q-5 What are the purposes of a buildpack? Select all answers that apply.

1. A buildpack creates a droplet that gets deployed when an application instance is created
2. A buildpack provides the tools for creating web and worker applications
3. A buildpack provides a detection mechanism to figure out which build should be used to build your application
4. None of the above

Ans: A,C

Q-6 Do buildpacks provide parameters that can change the buildpacks behavior?

YES/NO

Ans: Yes

Q-7 Cloud Foundry can only deploy Web Applications?.

True/False

Ans: False

Q-8 What type of health checks can Cloud Foundry use to monitor instances? Select all answers that apply.

1. Size
2. Listening on Port
3. Process Alive
4. Restart rate
5. HTTP

Ans: B,C and E

Q-9 To send log messages to Cloud Foundry (to view with "cf logs APPNAME"), the application should send the logs to \_\_\_\_\_\_\_\_\_\_\_\_.

1. debug.log
2. STDOUT, STDERR
3. STDOUT, STDERR, Production.log
4. Development.log, Production.log
5. 127.0.0.1

Ans: B

Q-10 What is the default order that variables use to determine the values for a given resource?

1. Manifest, Command line option, Currently used
2. Currently used, Manifest, Cloud Foundry, Provider, Command line option
3. Cloud Foundry, Provider, Currently used, Manifest, Command line option
4. Cloud Foundry, Application, Currently used, Manifest, Command line option

Ans: C

Q-11 Using the X-CF-APP-INSTANCE Header is for \_\_\_\_\_\_\_\_\_\_\_.

1. Tagging a request for Zipkin
2. Scaling the number of instances up and down
3. Redirecting the request to a specific running instance of the application
4. Doing nothing

Ans: C

Q-12 The Cloud Foundry Tool is only needed if you are using Unix. You should use the GUI tool if you are on Windows or macOS.

True/False

Ans: False

Q-13 The "cf push" command is only for pushing the app. You cannot set the number of instances or memory size, and need to use "cf scale" to set them.

True/False

Ans: false

Q-14 When you use the HTTP health check, the web application's endpoint needs to respond within \_\_\_\_\_\_\_\_ .

1. 1 second
2. 60 seconds
3. 180 seconds
4. 200 seconds

Ans: A

Q-15 To deploy or push an application, you do not need the development environment installed on your system, only the CLI tool is needed.

True/False

Ans: True

Q-16 What does setting a quota plan on an Org do?

1. It puts limits on the applications that run from within the Org
2. It resets all the limits on all the Spaces in the Org
3. It puts limits on all future created Spaces

Ans: C

Q-17-Which Roles do not exist in Cloud Foundry? Select all answers that apply.

1. Org Manager
2. Space Manager
3. Org Developer
4. Org Auditor
5. Administrator
6. Org Billing Manager
7. Space Auditor
8. Space Developer
9. QA Manager

Ans: C,I

Q-18 Which of the following components are part of all Cloud Foundry routes? Select all answers that apply.

1. Hostname
2. Domain
3. URL
4. Port Number

Ans: B,D

Q-19 Which route allows the data to pass through without the GoRouter needing to examine it?

1. HTTP Route
2. TCP Route
3. Both HTTP and TCP routes
4. None of the above

Ans: B

Q-20 What is the most reliable way to do zero downtime deployments?

1. Write your script to do zero downtime deployments
2. Use one of the cf command plugins to do a zero downtime deployment
3. Type in the cf command manually
4. None of the above

Ans: B

Q-21 What are some of the names for zero downtime deployments? Select all answers that apply.

1. Blue-green deployment
2. Red-black deployment
3. A/B deployment
4. Black-blue deployment
5. Purple-orange deployment
6. Rolling deployment

Ans: A,B,C and F

Q-22 Which cloud native design pattern has a dashboard component?

1. Service Discovery Pattern
2. Circuit Breaker Pattern
3. Application Descriptor Pattern
4. Singleton Service Pattern

Ans: B

Q-23 Which properties apply to the 12 Factor “Processes” Principle? Select all answers that apply.

1. Web applications should be stateless
2. Processes should not store state
3. Admin processes should be allowed to run one-off tasks, like updating the database schema

Ans: A and B

Q-24 Cloud Foundry has a Marketplace for things like Redis and PostgreSQL. What aspect of the 12 factor methodology does this represent?

1. Codebase
2. Dependencies
3. Backing Services
4. Processes
5. Port Binding
6. Concurrency

Ans: C

Q-25 How can you use your logging stream?

1. To view specific events in the past
2. To do graphing trends
3. For active heuristic alerting
4. All the above

Ans D

Q-26 When you scale your application, Cloud Foundry must run your application through the Buildpack again to create more droplets.

True/False

Ans: False

Q-27 Which architecture encompasses the heart of Cloud Foundry?

1. Skyscraper architecture
2. Zilog architecture
3. Power architecture
4. Diego architecture

Ans: D

Q-28 Which of the following components deals with user authentication?

1. BBS
2. NATS
3. UAA
4. Consul

Ans C

Q-29 Where does Cloud Foundry store its buildpacks?

1. Cokestore
2. Blobstore
3. Candystore
4. Database

Ans: B

Chapter Question

Q-30 What were some of the advantages of a monolithic web-based application? Select all answers that apply.

1. Software is easier to code
2. The application has reusable parts
3. The data is able to be distributed
4. Test suites are simpler to run

Ans: A,D

Q-31 BOSH, which was developed to deploy Cloud Foundry, is also known as what type of tool?

1. Life-Cycle Management
2. Configuration Management
3. Container Management

Ans:A

Q-32 Cloud Foundry uses containers to run your application.

True/False

Ans: True

Q-33 What command would you use to get more details on the CF logs command? Select all answers that apply.

1. help logs
2. cf logs --help
3. cf help logs
4. cli help logs

Ans: B and C

Q-34 What operating systems are supported by the CLI tool? Select all answers that apply.

1. Windows
2. Linux
3. Android
4. macOS
5. iOS

Ans: A,B and D

Q-35 If you have a task that needs to run every 15 minutes, you would write and push it as a:

1. Worker Application
2. Web Application

Ans: A

Q-36 You need to ensure the development environment is installed on your machine before you can push an app.

True/False

Ans: False

Q-37 What are the generic names for existing buildpacks? Select all answers that apply.

1. Support Buildpacks
2. System Buildpacks
3. Community Buildpacks
4. Custom Buildpacks

Ans: B and C

Q-38 Do you require special permissions to use a community or custom Buildpack?

1. You always need special permissions to do anything with buildpacks
2. You only need special permissions to add, move, or delete them, you do not need special permissions to use them in your manifests or push command
3. You don’t need any special permissions to add, move, delete, or use buildpacks

Ans: B

Q-39 What is the purpose of Buildpacks?

1. Install language dependent libraries
2. Compile your application
3. Provide Cloud Foundry with the directions on how to execute or run your application
4. All of the above

Ans: D

Q-40 Which 12 factor principles involve buildpacks? Select all answers that apply.

1. Codebase
2. Build, Release, Run
3. Dependencies
4. Disposability

Ans: B and C

Q-41 Which of the following statements are true about Cloud Foundry? Select all answers that apply.

1. Cloud Foundry does not support the 12 Factor Methodology
2. Software developers must use the 12 Factor Methodology on Cloud Foundry
3. Cloud Foundry supports and simplifies software development using the 12 Factor Methodology
4. Cloud Foundry supports a comprehensive backend service interface

Ans: C and D

Q-42 Which principle is not directly supported by Cloud Foundry?

1. Admin Processes
2. Codebase
3. Concurrency
4. Configuration Data

Ans: B

Q-43 When you type in your username and password, what is this step called?

1. Authorization
2. User access
3. User login
4. Authentication

Ans:D

Q-44 Which one of the following is not a stage to deploy an app to Cloud Foundry?

1. Build
2. Release
3. Run
4. Monitor

Ans: D

Q-45 Where are buildpacks stored in Cloud Foundry?

1. A relational database
2. A repository
3. A blobstore
4. An archived compressed file

Ans: C

Q-46 Which command will help locate available services?

1. cf service-brokers
2. cf services
3. cf marketplace
4. cf service-access

Ans C

Q-47 Which of the following components is central to the messaging system?

1. Consul
2. etcd
3. NATS
4. BBS

Ans: D

Q-48 How would a developer apply a filter to the loggregator firehose?

1. Run a query
2. Create a nozzle
3. Use grep
4. None of the above

Ans: B

Q-49 If you push an app without specifying memory usage, what is the default used?

1. A-64MB
2. B-128 MB
3. C-256 MB
4. D-512 MB
5. E-1 GB

Ans: E

Q-50 What is the default health check used for an App?

1. HTTP
2. Port
3. Process
4. All of the above

Ans:B

Q-51 What type of health check is usually the best choice for worker applications?

1. HTTP
2. Port
3. Process
4. All of the above

Ans C

Q-52 what is it that manager roles cannot do?

1. Create Orgs and Spaces
2. Assign quota plans to Orgs and Space
3. Unassign user accounts from Orgs and Spaces
4. Push an application or service

Ans: D

Q-53 Which answer best describes how Orgs and Spaces are used?

1. Orgs can represent a business unit, while Spaces represent developers
2. Orgs represent your various products, while Spaces represent the deployment workflow
3. Orgs represent your developers, while Spaces represent application features
4. All the above correct

Ans D

Q-54 What are quota plans used for in Spaces?

1. Quota Plans are used to determine your pay
2. Quota Plans define minimum amount of resources used
3. Quota Plans define the maximum amount of resources used
4. Quota Plans determine the maximum rate that messages can be received

Ans: C

Q-55 How does Cloud Foundry use the principle of least privilege?

1. Permissions are directly assigned to user accounts to minimize the user account actions
2. Roles are defined to minimize what actions user accounts can do within Orgs and Spaces
3. Roles can be assigned new permissions by the Managers
4. Cloud Foundry does not use the principle of least privilege

Ans :B

Q-56 What is a Domain used for?

1. A domain is used to define a router that maps your application to its location in Cloud Foundry correct
2. A domain is used to execute your applications
3. A domain is a DNS service

Ans: A

Q-57 What is the difference between an HTTP route and a TCP route?

1. An HTTP route is determined by the URL, while a TCP route uses the port number
2. An HTTP route can use any port number, while a TCP route does not
3. All routes have their data decoded at the router

Ans: A

Q-58 What is Cloud Foundry Routing based upon? Select all answers that apply.

1. Routing is based upon the various Internet Protocols
2. Routing is based upon the US postal service
3. Routing is based upon wood engravings

Ans: A and B

Q-59 What is Zero Downtime Deployment? Select all answers that apply.

1. Engineers and Managers will never sleep again
2. Zero Downtime Deployments eliminate testing
3. The ability to install software non disruptively
4. The ability to restore software non disruptively

Ans: C and D

Q-60 What other actions should Zero Downtime deployment include besides the deployment itself?

1. A full QA suite of tests
2. A few sanity or smokes tests to ensure the application is installed correctly correct
3. The company approval check that the software can be deployed

Ans: B

Q-61 Which of the following statements does not apply to Zero Downtime Deployments?

1. Zero Downtime Deployments should never modify code
2. Zero Downtime Deployments are difficult to do on Cloud Foundry
3. Zero Downtime Deployments require planning

Ans: B

Q-62 Choose the best statement describing what a cloud native design pattern is.

1. A cloud native design pattern helps with communications
2. A cloud native design pattern is a generic design template for a programming problem
3. A cloud native design pattern can be repeatedly applied to similar programming problems

Ans: B

Q-63 How does the configuration server improve on Cloud Foundry’s configuration variables?

1. Configuration variables do not need to be pushed on deployment
2. Configuration variables can be changed without pushing the applications
3. The application can start running while waiting for the configuration variables to be defined
4. All of the above

Ans: D

Q-64What does service discovery do?

1. Service discovery finds excellent restaurants with superb service
2. Service discovery makes it easy for clients to find routes to dynamic services
3. Service discovery stores its data across reboots

Ans: B

Q-65 Which component does CF use for application logging?

1. Loggregator
2. BOSH
3. Elastic Runtime

Ans : A

Q-66 What are the common commands you can use to debug an App? Select all answers that apply.

1. cf debug APPNAME --recent
2. cf logs APPNAME
3. cf logs APPNAME --recent
4. cf ssh APPNAME

Ans: B,C and D

Q-67 What does Zipkin trace use to link together logs from each application in Cloud Foundry? Select all answers that apply.

1. Universally unique identifier
2. Correlation identifier
3. Traceid
4. Ztrace

Ans: C and D