1. **Developer Studio is primarily based on which of the following IDEs?**

* Eclipse

1. **All the below statements are true about Liferay developer studio except.**

* **Only allow you to install the Liferay CE bundle automatically.**

1. **OSGi is a specification and a set of standards for modular Java software development.(**Correct**)**
2. **Every bundle has a unique identifier that has two headers (Bundle-SymbolicName and Bundle-version).**(Correct)
3. **What is true about bundle version ranges?**

* [1.1, 2.0) includes version 1.1 up to 2.0, but excludes 2.0.
* Parentheses ‘(’ and ‘)’ indicate exclusiveness.
* Square brackets ‘[’ and ‘]’ indicate inclusiveness
* Because “[” includes and “)” excludes”

1. **If the bundle is in an installed state, what is this mean?**

Bundle is missing some dependencies.

1. **What are the characteristics of a service registry?**

* Provides a mechanism to look up and bind published services dynamically.
* Provides loose coupling by hiding the implementation details from the client.
* Provides a mechanism to publish services to the OSGi container.
* Allows multiple available services implementation to coexist.
* Consuming clients may have policies and filters for binding specific implementations.

1. **Declarative service is a framework that allows you to use @Component annotation and register services.**(Correct)
2. **Export-Package – Import-Package is a method of Sharing packages between bundles.**(Correct)
3. **All Liferay applications are OSGi applications that run in the OSGi container.**(Correct)
4. **What is Liferay workspace?**

* Not mandatory for Liferay development.
* Can be used separately from the IDE.
* A generated, wrapper environment for Liferay projects.
* Provides tools and a folder structure for projects.
* It is transportable environment.

1. **Blade CLI creates a module that can work only inside a workspace.**(Incorrect)
2. **Which command do you need to execute to close the connection to the Gogo Shell without shutting the OSGi container down?**

* Disconnect

1. **Portlet is:-**

* Governed by the JSR-168, JSR-286, or JSR-362 portlet specification.
* An application runs in the portlet runtime environment called portlet container.
* A web component/ application producing an HTML fragment of a page.
* In Liferay, an Application has a user interface.

1. **What are the two descriptor files that used in building java standard portlet?**

* Web.xml
* portlet.xml

1. **The MVC Render phase is always followed by the Action phase.**(Incorrect)
2. **You can use the MVC Render command to get a list of assets to show in the user interface.**(Correct)
3. **The MVC Action Commands used for**

* Upload documents.
* Add, edit or delete and item.

1. **We can set portlet window state in JSP as well as portlet class.**(Correct)
2. **Public render parameter is a method of sharing parameters between different portlets and is available in all lifecycle phases that can define in portlet.xml.**(Correct)
3. **What are possible ways for portlets to share parameters with each other?**

* Public render parameters.
* Events
* Client-Side IPC.
* Portlet sessions

1. **You can create a portlet without using XML configuration and portlet configuration is done in the portlet’s component properties.**(Correct)
2. **All Liferay core services are build using Service Builder.**(Correct)
3. **The object that aggregates necessary information for features used throughout Liferay DXP’s portlets and services is called?**(Service context)
4. **Service Builder generates a portlet-model-hints.xml file that contains Hibernate SQL column mapping for entities and provides a way to customize field types, size, and validation.**(Correct)
5. **Both local and remote services have the same performance.**(Incorrect)
6. **Which of the following is a valid way to invoke a** Liferay web service**?**

* From a browser, logged into Liferay and supplying a valid p\_auth authentication token.
* From a non-browser client, using basic authentication.
* Via JavaScript using Liferay.service(…).
* Using Liferay JSON web service API page (/api/jsonws).

1. **Which of the following are module templates that Liferay DXP provides for building the presentation layer? (Choose all correct answers)**

* Mvc portlet
* Freemarker-portlet
* spring-mvc-portlet

1. **The Liferay JavaScript object contains helpful tools like:**

* Liferay.ThemeDisplay.
* Liferay.Service.
* Liferay.Language.
* Liferay.Browser.

1. **The key to display term mapping done in which of the following files?**

* Language.properties

1. **Which of the following is not a core concept of access control in Liferay DXP?**

* Actions

1. **Liferay is built on many-core technologies except:**

* Hypersonic

1. **The Java API for XML Web Services (JAX-WS) and for building RESTful services (JAX-RS) is incorporated as the preferred tooling to create web services.**(Correct)
2. **What is the Portlet filter?**

* Is an API-based method of overriding the application JSPs.

1. **What Is not supported in the custom field?**

* Image

1. **What are Liferay Assets and resources that let you add new fields to their edit forms?**

* Document
* Blogs Entry
* Calender Events
* Document Folder
* But not form

1. **Which of the following is not a central concept in integrating with Asset Framework?**

* Asset Renderers Helpers

1. **Which of the following are the available reference policies?**

* Dynamic
* Static

1. **MVC Resource Commands can be used for:**

* Update list without page refresh.
* Do a captcha check
* Autocompletion
* Fetch an item in the user interface with an AJAX call

1. **Which of the following is not a configuration scope?**

* Portal

1. **Service action Events are processed only before (not after) the request is processed.**(Incorrect)
2. **What is true about Model Listeners?**

* Available for both core services and custom, service builder-generated services.
* OSGi component that implement ModelListener interface.
* Listen to persistence events on models and their associations.

1. **Model listeners are called before a database transaction is complete and that the order in which the listeners are invoked cannot be set.**(Correct)
2. **What is true about listeners registration?**

* Listeners can register to destination to receive messages in one of three methods
* Publish the listener to OSGi registry as a Declarative services component that specifies a destination. The message Bus automatically wires the listener to the destination.
* Obtain a reference to a destination and use it directly to register the listener with that destination.
* Obtain a reference to Message Bus and use it directly to register the listener to a destination.

1. **In Asynchronous, the sender sends the message to Message Bus, and the message blocks the processing for the rest of the sender’s request.**(Incorrect)
2. **It’s recommended to use Elastic search in large data sets only.**(Incorrect)
3. **What is indexing?**

* (The process of transforming a portal asset to a search engine index document, which is the storage model type for search engines.)

1. **Searching is sending a search query and obtaining results, also called hits, from the search engine.**(Correct)
2. **What can you do using Hits processors?--**
3. **The hits processors allow you to perform actions on the hits returned.**(Correct)

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1. **Reference Cardinality defines whether a reference has to be satisfied for the component to be able to activate.**(Correct)
2. **Which of the following language file names follow proper naming syntax?**

* **Language\_en\_US.properties**

1. **Overriding is possible even with static and reluctant reference policy.**(Correct)
2. **Which of the following are the three MVC Commands?**

* MVC Action
* MVC Resource
* MVC Render

1. **What are the struts basic concepts?**

* Action Controller
* Action Servlet
* Action Form
* View Layer

1. **Overriding Struts actions in the context of Liferay means overriding action controller classes.**(Correct)
2. **How are model resources typically identified and referenced?**

* **By the entity’s fully qualified class name**

1. **You cannot make event listener that run once for every portal instance that is initialized.**(Incorrect)
2. **Which of the following key properties are used to make event listeners that run once for every portal instance that is initialized?**

* application.statup.events.

1. **When rendering the assets, the Asset Publisher portlet first finds an Asset Renderer for the model type and then asks for an Asset Renderer Factory service.**(Incorrect)
2. **Why does Liferay use Elasticsearch?**

* Elastic search use queries that make an inverted index which is optimized for speed.
* RDBMS data structures are not optimal for searching and joins are expensive and cause killers.

1. **Which of the following statements is not true of JAX-WS and JAX-RS?**

* **JAX web services can be deployed and accessed from JAX endpoints.**

1. **Which of the following statements is true of JAX-WS and JAX-RS?**

* **Liferay supports JAX-WS and JAX-RS via the Apache CXF implementation.**
* **Apps can publish JAX web services to the CXF endpoints**
* **CFX endpoints are context paths for JAX web services.**

1. **There are two operation modes available for Elasticsearch: embedded and remote.**(Correct)
2. **What are the analysis phases?**

* Token filtering.
* Tokenizing.
* Character filtering.

1. **The doSearch methods in Liferay’s ElasticsearchIndexSearcher returns:**

* SearchResponse

1. **Hit processors can process the results search from the search engine before sending it to the front-end.**(Correct)
2. **Which of the following statements is not true about Liferay Developer Studio?**

* **It is a necessary tool for development with Liferay.**

1. **Which of the following statements is not true about Liferay Developer Studio?**

* **It comes bundled with the Blade command-line tools.**
* **It enables developers to use drag and drop deployment for runtimes.**
* **It is included as part of a Liferay DXP subscription**

1. **Liferay server bundles are shipped with:**

* Hypersonic database

1. **Multi versions of bundles can co-exist within OSGi container.**(Correct)
2. **A component is any java class inside a bundle that doesn’t have a life cycle.**(Incorrect)
3. **Startup events are called once when either the portal (global prefix) or portal instance (application prefix) starts or shuts down.**(Correct)
4. **Which of the following statements about OSGi are true?**

* An OSGi component can be stopped.
* Declarative services (DS) is a service that handles OSGi dependency injection and allows you to publish, find, and bind services based on XML metadata and annotations.
* An OSGi component have a lifecycle.
* An OSGi component is any Java class inside a bundle that is declared to be a component.
* A service is an OSGi component registered to the OSGi container's service registry.

1. **Declarative service allows you to declare and consume services via XML metadata and annotation.**(Correct)
2. **Bndtools is a configuration tool that allows you to:**

* Creates OSGi feature-sharing headers automatically.
* Reads information from annotation and the bnd file.
* Creates service declaration XML files and OSGi bundle manifest headers automatically.

1. **Below are possible headers to share features between bundles except:**

* Static import

1. **Below are possible headers to share features between bundles :**

* Required Bundle.
* Export Package – Import Package.
* Provide Capability – Required Capability.

1. **Liferay workspace can be used outside the developer studio.**(Correct)
2. **Which Blade CLI command executes the Gradle command using the Gradle Wrapper?**

* gw

1. **BLADE CLI can be used to create projects that are compatible with any IDE or development environment.**(Correct)
2. **Gogo shell cannot be used outside Liferay developer studio.**(Incorrect)
3. **The MVC Serve Resource command is always followed by the MVC Render command.**(Incorrect)
4. **Which of the following statements are true about the MVC Render phase?**

* Corresponding standard method: render().
* Wrapper objects: RenderRequest – RenderResponse.
* Generate HTML fragment.
* Every portlet on the page has to go through this initially.

1. **MVCPortlet copy all ActionRequest parameters to the Render phase and this behavior can be disabled in portlet configuration.**(Correct)
2. **Which of the following is not a valid MVC command class? (choose two)**

* MVC Rewrite
* MVC Ajax

1. **JSR-268 established two methods of inter-portlet communication: Events and public render parameters.**(Correct)
2. **Service builder can be used without persistence to create web services.**(Correct)
3. **Service Builder can generate two service variants, local and remote service.**(Correct)
4. **There are two types of finder regular finder and filtered finders.**(Correct)
5. **The portlet contains both the controller and the view layers of the MVC Pattern.**(Correct)
6. **In order to make MVCActionCommand you should:**

* extends BaseMVCActionCommand class.
* implement MVCActionCommand interface.

1. **Below are the tag libraries offered by Liferay except:**

* liferay-aui

1. **Below are the tag libraries offered by Liferay :**

* Liferay-theme.
* Liferay-portlet.
* Liferay-util.
* Aui
* liferay-ui

1. **Liferay’s server-side validation utility is implemented in:**

* com.liferay.portal.kernal.util.Validator

1. **A scope where permissions can be applied:**

* Company
* Indivisual
* Group
* Group Template

1. **A Framework to handle objects and features like comments and rates.**

* Asset

1. **Which method renders you JSP in a class extending BaseJSPAssetRenderer?**

* getJspPath

1. **Liferay’s tooling supports the 6th edition of ECMAScript specification and provides the ability to use it in all modern browsers with the integration of the Babel JS transpiler.**(Correct)
2. **Liferay relies on industry-proven standards. The supported standards include:**

* Liferay is an active contributor to the standard and the lead of the JSF-Portlet Bridge specification.
* Liferay supports the OSGi family standards through its own implementations and also integrates implementation of Apache Felix and Eclipse Equinox projects.
* Liferay can run any portlets that follow JSR-168, JSR-286 and JSR-362 portlet specifications.
* The Java API for XML Web Services (JAX-WS) and for building RESTful services (JAX-RS) is incorporated as the preferred tooling to create web services

1. **Which types of Geolocation filter does Liferay DXP support?**

* GeoDistanceFilter.
* GeoDistanceRangeFilter.
* GeoPolygonFilter.
* GeoBoundingBoxFilter.

1. **Expando API allows you to create virtual tables not related to any model class.**(Correct)
2. **What Liferay Assets and resources let you add new fields to their edit forms:**

* Message Boards Message.
* Knowledge Base Article.
* Message Boards Category.
* Knowledge Base Folder.

1. **Service wrapper provides a safe way to customize Liferay’s core services.**(Correct)

############################2#########################

1. **While Liferay workspaces can be used in many different development environments, they can only be generated through the use of Liferay Developer Studio.**(Incorrect)
2. **All the below statements are true about Liferay developer studio community edition except:**

* allow you to install the Liferay DXP bundle automatically

1. **All the below statements are true about Liferay developer studio community edition:**

* an open-source publicly available set of Liferay Eclipse Plugins
* can be installed on top of an existing Eclipse installation
* the same as developer studio DXP but only allows you to install the Liferay DXP bundle automatically
* available as an eclipse bundle

1. **It highly recommended to use Hypersonic database in production environment.**(Incorrect)
2. **Liferay is built on OSGI technology.**(Correct)
3. **Bundle can be stopped while it is in the resolved state.**(Incorrect)
4. **Which of the following does service builder use to generate code?**

* service.xml

1. **Input validation is typically beneficial to all of the following areas, except**

* reliability

1. **Input validation is typically beneficial to all of the following areas**

* Usability
* Security
* Resource usage

1. **Portlet class act as a class and a component at the same time.**(Correct)
2. **Service Builder is a model-driven code generation tool that takes an XML input file and generates persistence code, CURD methods, and service layer automatically.**(Correct)
3. **If you are using Service Builder, in which file would you specify data restrictions (e.g field size, validation, ..).**

* portlet-model-hints.xml

1. **Remote service meant for accessing the service remotely through web service and accessing the service locally but with permission checks.**(Correct)
2. **Service wrappers are typically used for overriding the core service classes.**(Correct)
3. **In order to make MVCRenderCommand you should:**

* implement MVCRenderCommnand interface.

1. **The following classes provide support for providing custom success and error messages to the client:**

* SessionErrors.
* SessionMessage.

1. **Top-level actions are actions for existing resources while Resource action are model actions for non-existing resources**(Incorrect)
2. **A role is a collection of permissions that can be assigned to:**

* Users,Sites,Organizations,UserGrous etc

1. **default.xml is the file where we declare resources and their permissions.**(Correct)
2. **Asset framework is a content-related framework that allows you to aggregate all of the different types of content under one umbrella or one name known as an asset.**(Correct)
3. **Which of the following aspects of your asset are defined in the AssetRenderFactory implementation?**

* If the asset is active.
* If the asset is categorizable.
* If the asset is linkable.
* If the asset is selectable.

1. **Bundle activators is a class that implements org.osgi.framework.BundleActivator interface and Liferay use bundle activator to control different lifecycle states of a bundle.**(INCORRECT)
2. **Below are characteristic of component except:**

* It takes care of its lifecycle.

1. **Below are characteristic of component:**

* An object managed by the component framework of OSGi.
* Usually, implement an interface.
* Like a bundle, a component has a lifecycle: it can be started and stopped.
* Any java class inside a bundle declared as a component

1. **UI taglibs fall back to the portal bundle if a portlet bundle is not found.**(Correct)
2. **A capability is described by two main attributes:**

* Namespace
* attributes

1. **Exporting a bundle explicitly defines which packages to export and make available to other bundles.**(Correct)
2. **Liferay DXP still support the traditional WAR-based portlet development.**(Correct)
3. **Which Blade CLI command connects to Liferay and executes the Gogo command and returns output?**

* sh

1. **The MVC event phase cause all portlet in the page to re-render.**(Correct)
2. **By convention, top-level actions are referenced by the package name of the respective service and the resource actions by the fully qualified name of the targeted model entity.**(Correct)
3. **What are the three portlet standard modes?**

* View
* Help
* Edit

1. **Which method would you use to obtain a summary of your asset?**

* The getSummary method of the AssetRenderer instance.

1. **Liferay relies on industry-proven standards such as the Portlet standard and JSF.**(Correct)
2. **Which of the following are requirements that Liferay architecture satisfies?**

* Facilitates swapping components.
* Leverages development standards.
* Supports using common development technologies
* Its runtime is easy to configure and inspect.
* Starts fast and perform well.

1. **Which four entities represent Expandos in the database?**

* ExpandoRow,ExpandoTable,ExpandoColumn,ExpandoValue

1. **What Liferay Assets and resources let you add new fields to their edit forms?**

* Roles,Page,Site,Organization

1. **An OSGi container allows multiple service implementations to co-exist.**(Correct)
2. **The reference policy defines whether an injected services reference can be replaced dynamically.**(Correct)
3. **Which of the following are the available reference policy options?**

* RELUCTANT
* Greedy

1. **MVC Action Commands are handler components for a portlet’s action phase, typically used to process a form submission and perform a model action.**(Correct)
2. **MVC Render Commands can be used for:**

* Get a list of assets to show in the user interface.
* Fetch an asset entry to show in the user interface.

1. **Which of the following are steps for overriding struts action?**

* Create a new Struts Action component.
* Find the action path you are overriding (struts-config.xml).
* Override and implement methods as needed.
* Create a Liferay Module Project.

1. **The @Indexable Annotation is a Liferay-provided, method-level annotation to be used with Service Builder that automatically updates the index on entity modification events.**(Correct)
2. **Which of the following are steps for enabling workflows for custom entities? (choose three)**

* Add workflow instance creation and deletion handling to the service layer.
* Ensure that the model entity has status fields
* Make getter methods on the service layer status-aware.

1. **Which of the following are Steps for creating a Model Listener?**

* Create a new Liferay module using the API template.
* Implement the event handler method(s).
* Create a model listener component using Liferay Component Class wizard.

Note:- can not create ModelListener using extending

1. **The destination is a named endpoint for sending a message to and receives messages from, listeners registered to it to receive messages.**(Correct)
2. **What are the destination types in Liferay message bus system?**

* Synchronus
* Serial
* Parrlel

1. **Code using the Liferay platform search always communicates through the portal search API.**(Correct)
2. **The default framework used by Liferay DXP for indexing is:**

* Elastic Search

1. **What is meant by analysis phase in Liferay search?**

* Can be configured for each field individually in the mapping definition
* A field-level process of transforming input data to search engine data
* Run both the index time and search time

1. **What can you do using Hits indexer postprocessors?**

* Modify index documents before they’re sent to the search engine
* Modify result summaries when they’re returned, end-user
* Modify queries before they are executed

1. **bnd.bnd provides the dependencies while build.gradle wires the dependencies to bundle.**(Incorrect)

**####################3###################################**

1. **Which of the following can be found in the top-level of a Gradle-generated Liferay workspace? (Choose all correct answers)**

* Bundles,Themes,Settings
* Config,ext,gradle
* Modules,plugins-sdk,wars
* Build.gradle,gradle.properties,gradle-local.properties
* Gradlew,setting.gradle etc

1. **Commercial database JDBC drivers are shipped with Liferay server bundles.**(Incorrect)
2. **Bundle works in the following state of the bundle lifecycle.**

* Resolved

1. **Why do we declare classes as a component in the first place?**

* Can consume services published by other components.
* Can have properties and an activation policy.
* Can publish itself as a service and make itself available to other components.
* Has an independent lifecycle and is reusable.

1. **Declarative service is a service that handle OSGi dependency injection and allows you to publish, find and bind services based on XML metadata and annotations.**(Correct)
2. **@Reference annotation allows you to define a new component.**(Incorrect)
3. **Export-Package – Import-Package is a method of Sharing classes between bundles.**(Correct)
4. **Which of the following are not ever generated by ServiceBuilder(choose two)**

* Server.xml
* portlet-module-hits.xml

1. **You can override an OSGI Service by injecting a Service Wrapper implementation with a higher priority than existing one.**(Correct)
2. **You should always rebuild your service after modifying the local service.**(Incorrect)
3. **All of the Liferay platform’s core applications are OSGi applications.**(Correct)
4. **Steps to create a component within Liferay are:**

* Define component/service properties.
* Implement / override methods.
* Annotate the class with @Component.
* Inject Other components and services with @Reference
* Find the interface or superclass to implement or extend, if available.

1. **Services and functionalities within the Liferay platform leverage the OSGi component and services model.**(Correct)
2. **Blade CLI can be used within any IDE.**(Correct)
3. **A feedback process within an application could potentially consist of setting a message key in the back-end, doing a localization in Langauge.properties, and showing the message on the user interface using the <liferay-ui:success> and <liferay-ui:error> tags**(Correct)
4. **What is true about gogo shell commands?**

* dm wtf is a command to show any missing dependencies.
* disconnect is a command to disconnect from shell without shouts down the container.
* exit is a command to disconnect from shell with shouts down the container.
* lb is a command for listing all bundles.

1. **Portal instance settings can be managed in control panel as well as properties file.**(Correct)
2. **We can access the gogo shell using blade CLI command: blade sh [gogo\_shell\_command].**(Correct)
3. **Which of the following statements are true about the MVC event phase?**

* Wrapper objects: EventRequest – EventResponse.
* All registered listeners process the event.
* Cause all portlet in the page to re-render.
* Used for inter-portlet communication (IPC).
* Process events triggered in the action phase.

1. **The MVC Resource phase can be use for:**

* Auto-completion of search field.
* Refreshing portlet content without page refresh.
* Continuous loading of content feeds.
* Doing any background operation without page refresh.

1. **Files with the .css suffix are SASS-compiled to .scss and referenced in the properties with .css.**(Incorrect)
2. **Which of the following scopes can be assigned to a Role in Liferay DXP? (Choose all correct answers)**

* Team
* Organization
* global

1. **Public render parameters and Events are the only two ways for inter-portlet communication.**(Incorrect)
2. **Below are benefits of using Liferay workspace:**

* Provides a complete working environment when bundled with portal server.
* Is transportable environment.
* Provides all tools needed to create Liferay modules.
* Supports Gradle and Maven.

1. **Liferay workspace is Mandatory for Liferay development.**(Incorrect)
2. **What are the benefits of extending MVCportlet class?**

* Reduce the boilerplate code.
* Still inherits the javax.portlet.Portlet.
* Allow you to write multi module applications.
* Still extends a javax.portlet.GenericPortlet.

1. **Liferay has it’s own implementation of a portlet that extends GenericPortlet.**(Correct)
2. **When you build Service Builder, it automatically generates:**

* Spring and Hibernate configurations.
* Model, Persistence and service Layers.
* Local and remote services.

1. **The Gradle buildService task generates the code based on service.xml.**(Correct)
2. **Wrapper classes are generated in the service module.**(Incorrect)
3. **When you need to rebuild your Service Builder:**

* If the implementation class method signature has been changed.
* If portlet-model-hints.xml has been changed.(doubt)
* If service.xml has been changed.

1. **Service Builder is a code generation tool that takes an xml configuration file as an input and generates a complete service layer as an output.**(Correct)
2. **Service Wrapper allows you to override Service Builder generated services from within external modules.**(Correct)
3. **In Liferay world only one validation is enough to grantee security, client side or server side.**(Incorrect)
4. **A scope where roles can be applied:**

* Global
* Site or organization
* Within a site or organization (Team)

1. **Permissions are always granted to users directly.**(Incorrect)
2. **What is the asset framework?**

* A framework providing ways to associate and link any type of content with other portal assets, tags, and categories.
* A framework making it is possible to publish and manage different kind of contents in a unified way and through a standard API.
* A framework providing a way to integrate content, for example, with platform search and workflows.

1. **Asset Renderer factory is a component that provides an Asset Renderer to calling application API, and provides a facility to create multiple renders for an asset type.**(Correct)
2. **What Liferay Assets and resources let you add new fields to their edit forms:**

* Message Boards Message.
* Knowledge Base Article.
* Message Boards Category.
* Knowledge Base Folder.
* User
* UserGroup
* Webcontent Article
* Webcontent Folder
* Wikipage etc

1. **Target attributes allow you to filter the service implementation to be injected.**(Correct)
2. **When using MULTIPLE option in reference cardinality, a setter method has to be defined.**(Correct)
3. **Portal lifecycle events allow you to execute actions on:**

* Servlet service call.
* Login and logout.
* Portal startup and shutdown.
* Layout (page) update.

1. **Start up and shutdown events called once on portal startup or shutdown.**(Correct)
2. **Login Events allow you to catch an event pre- and post-login and logout.**(Correct)
3. **In Asynchronous sending, after a message is sent (in a different thread), the sender is free to continue processing.**(Correct)
4. **Liferay Service Builder leverages Message Bus with two annotations: @Async and @Clusterable.**(Correct)
5. **Which of the following are true of the Liferay Search Framework? (choose two)**

* The default search engine is Elasticsearch.
* Liferay DXP uses an external search engine.

1. **Web service APIs are generated automatically for entities having remote-service=true.**(Correct)
2. **Indexer post processors are components that allow you to modify the way portal assets are be indexed.**(Correct)
3. **The SOAP API is not generated by default.**(Correct)

######################4############################

1. **We can use only Liferay developer studio and Eclipse IDE to develop Liferay applications.**(Incorrect)
2. **Service Builder is a model-driven code generation tool that takes a cfg input file and generates code automatically.**(Incorrect)
3. **Using MVC command benefits are:**

* Register to a portlet with javax.portlet.name component property.
* Reduce boilerplate portlet coding.
* Handle user interaction with the portlet
* Register to a command name with mvc.command.name property.

1. **The reference has to be satisfied (available and injected) for the component to start by default using:**

* Cardinality.MANDATORY.

1. **The following points are true about permissions in Liferay except:**

* Permissions granted to users permanently once it is created.

1. **The following points are true about permissions in Liferay:**

* A combination of a resource and an action.
* Define an action that can be performed on a resource.
* Granted to Role, not user.

1. **Asset is an abstract, generic representation of any model, acts as a wrapper, and provides some metadata in regards to the content itself.**(Correct)
2. **Which of the following are steps for overriding MVC Commands?**

* Locate the mvc.command.name parameter.
* Find the MVC Command class to override.
* Locate the target portlet bundle and its bundle name.
* Implement an overriding component with a higher service ranking.

1. **Liferay developer studio DXP is an open-source publicly available set of Liferay Eclipse Plugins**(Incorrect)
2. **The best practice to override portal properties is to use:**

* portal-ext.properties.

1. **What are the three portlet window states?**

* Normal
* Minimized
* Maxmized

1. **Which of the following is not reference cardinality?**

* Static

1. **Which of the following is reference cardinality?**

* MANDATORY.
* Multiple
* AT\_LEAST\_ONE
* OPTIONAL

1. **The Message Bus System is made up of the following:**

* Destinations
* Listeners
* Senders

1. **Synchronous Sending has two operation modes: Default which delivers the message in the same thread of execution and blocks it until it receives a response and Directs which delivers the message in a separate thread with a timeout.**(Incorrect)
2. **Portal lifecycle event Listeners are OSGi components that implement the LifecycleAction interface and the event to catch is defined with the component Event property.**(Incorrect)
3. **Liferay developer studio community edition is a commercial, productized version of Eclipse.**(Incorrect)
4. **Public render parameter is a method of sharing parameters between different portlets and available in all lifecycle phases that can define in portal.xml.**(Correct)
5. **What are the two non-standard communication methods?**

* Portlet sessions.
* Client-Side IPC.

1. **By default, bundle have private package visibility.**(Correct)
2. **Which of the following statements are true about the MVC Action phase?**

* Can also trigger events of other portlets.
* Always followed by render phase.
* Corresponding standard method:processAction().
* Usually triggered by a form submit.

1. **Service action Events executed on every request, including those for static resource.**(Correct)
2. **Layout events are triggered when a layout(page) is updated or deleted.**(Correct)
3. **Tomcat server adapter shipped with developer studio (DXP and community).**(Correct)
4. **Provide Capability – Required Capability is a method of Sharing package between bundles.**(Incorrect)
5. **OSGi Bundle is:**

* The unit of deployment in OSGi.
* Manageable, testable.
* Self-contained.
* A jar file with OSGi headers.

1. **The main portal configuration file portal.properties cannot be overridden.**(Incorrect)
2. **ActionRequest parameters are not automatically available in the Render phases, but can be passed with an ActionResponse object.**(Correct)
3. **The window state can only be set in the Action phase.**(Correct)
4. **Why Liferay use Elasticsearch?**

* Use algorithms and structures like inverted index, which is optimized for speed.
* Support for advanced query types and features like fuzzy or proximity searches.
* RDBMS data structure are not optimal for searching and joins are expensive.
* Typically runs in dedicated servers.

1. **Liferay support only Elasticsearch engine.**(Incorrect)
2. **Blade CLI is:**

* Can be used within any IDE.
* Can be independent of Liferay workspace.
* Used by Liferay workspace for managing module projects.
* A set of command line tools.

1. **Which of the following is not a step integrated with the Asset Framework?**

* Manage the asset renderer helper.

1. **Which of the following is a step integrated with the Asset Framework?**

* Add the required fields and references to the entity definitions.
* Create an asset renderer factory for the model class.
* Implement the JSP files to support the Asset Publisher.

1. **If you are using Service Builder to create your custom entities and want to implement permissioning support for your application, you must define service permissions in the service module and model permissions in the portlet module, typically the “web” module.**(Incorrect)
2. **Which of the following are CSS-related portlet component properties? (Choose all correct answers)**

* Com.liferay.portlet.header-portal-css
* Com.liferay.portlet.footer-portal-css
* com.liferay.portlet.header-portlet-css

1. **Liferay-provided tag libraries, such as clay and liferay-theme, contain tags for most common user interface components but are ultimately superseded by standard tag libraries.**(Incorrect)
2. **Service Builder creates implementation classes for every defined entity’s Model class and Entity Finders.**(Correct)
3. **Liferay bundles are provided for Apache Tomcat and Wildfly**(Correct)
4. **All the below statements are true about Liferay developer studio community edition except:**

* allow you to install the Liferay DXP bundle automatically

1. **All the below statements are true about Liferay developer studio community edition :**

* an open-source publicly available set of Liferay Eclipse Plugins
* can be installed on top of an existing Eclipse installation
* the same as developer studio DXP but only allows you to install the Liferay DXP bundle automatically
* available as an eclipse bundle

1. **We can use Gogo Shell to write a script to get all portal users**(Correct)
2. **Public render parameters and Events are the only two ways for inter-portlet communication**(Incorrect)
3. **We have following Types of IPC Mechanisms which Liferay portal can support.**

* Portlet Sessions IPC
* Public Render Parameters IPC
* IPC Events
* Client Side IPC with AJAX
* Client Side IPC with Cookies

1. **What are possible ways for portlets to share parameters between each other**

* Public render parameters.
* Events
* Client-Side IPC.
* Portlet sessions

1. **What are the benefits of extending MVC portlet class**

* Reduce the boilerplate code
* Allow you to write multi-module applications
* Still inherits the javax.portlet.Portlet
* Still extends a javax.portlet.GenericPortlet

1. **In Liferay, JSON web services are disabled by default, to enable them you should set Jsonws.web.service.enabled=true**(Incorrect)
2. **Asset framework is a framework making it possible to publish and manage different kinds of content in a unified way and through a standard API**(Correct)
3. **What is true about a Portlet filter?**

* Is an API-based method of overriding the application JSPs.

1. **Which of the following are custom fields features**

* Searchable
* Cacheable
* Permissionable
* Accessible from FreeMarker and Velocity templates

1. **Which of the following are Liferay’s built-in frameworks?**

* Asset Framework
* Search
* Localization

1. **The Core provides the component runtime environment for the frameworks, services, and UI. Here are some component examples:**

* [Services](https://help.liferay.com/hc/en-us/articles/360029028211-Service-Builder)
* [Service customizations](https://help.liferay.com/hc/en-us/articles/360029144671-Introduction-to-Overriding-Liferay-Services-Service-Wrappers-)
* [Portlets](https://help.liferay.com/hc/en-us/articles/360029046351-Introduction-to-Portlets)
* [JavaScript applications](https://help.liferay.com/hc/en-us/articles/360028708732-Introduction-to-Developing-Web-Front-Ends)
* [JSP customization via Portlet Filters](https://help.liferay.com/hc/en-us/articles/360029122431-JSP-Overrides-Using-Portlet-Filters)
* [Theme](https://help.liferay.com/hc/en-us/articles/(/docs/7-2/frameworks/-/knowledge_base/f/themes-introduction))
* [Shared Language Keys](https://help.liferay.com/hc/en-us/articles/360029848111-Creating-a-Language-Module)
* [Navigation components](https://help.liferay.com/hc/en-us/articles/360029046531-Screen-Navigation-Framework)