

_____ is a process used in web development that turns website code into the interactive pages users see when they visit a website.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Rendering |
| <input type="radio"/> | Navigation |
| <input type="radio"/> | Encapsulation |
| <input type="radio"/> | Compilation |

Click to Save Answer & Move to Next Question

The three layers in a typical web based three-layered architecture are presentation, business and _____ layers.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | Application |
| <input type="radio"/> | Session |
| <input checked="" type="radio"/> | Data |
| <input type="radio"/> | Physical |

[Click to Save Answer & Move to Next Question](#)

_____ is basically a checklist of things which must be handled while developing your design.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | Web Application Testing |
| <input type="radio"/> | HTML and CSS |
| <input checked="" type="radio"/> | Web Application Frame |
| <input type="radio"/> | Web Application Design |

[Click to Save Answer & Move to Next Question](#)

Which of the following statements is **not true** about web applications?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | The core of a web application is its server-side logic. |
| <input checked="" type="radio"/> | Web application runs locally on the operating system (OS) of the device. |
| <input type="radio"/> | Web applications are accessed by users through a web browser with an active network connection. |
| <input type="radio"/> | The web application layer itself can be comprised of many distinct layers. |

_____ layer of web applications is usually developed using HTML, CSS and JavaScript.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | Network |
| <input checked="" type="radio"/> | Presentation |
| <input type="radio"/> | Data |
| <input type="radio"/> | Business |

Presentation entities store the data that is used to manage the views in the _____ layer of the web application.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Data
<input checked="" type="radio"/>	Presentation
<input type="radio"/>	Network
<input type="radio"/>	Business

Presentation entities are used to store state related to the _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | processing Logic |
| <input checked="" type="radio"/> | user interface |
| <input type="radio"/> | data |
| <input type="radio"/> | business |

Consider the _____ requirements for your presentation entities, if they are to be passed across the network or stored on the disk.

Select the correct option

<input type="radio"/>	Domain
<input type="radio"/>	Parsing
<input checked="" type="radio"/>	Serialization
<input type="radio"/>	Externalization

When designing a request-processing strategy, you should ensure separation of concerns by implementing the request-processing logic separately from the _____.

Select the correct option

<input checked="" type="radio"/>	User Interface
<input type="radio"/>	Business Logic Tier
<input type="radio"/>	Database
<input type="radio"/>	Network

Supervising controller pattern is a form of the _____ pattern.

Select the correct option

[Reload Math Equations](#)

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | MVC |
| <input type="radio"/> | shared-data |
| <input checked="" type="radio"/> | MVP |
| <input type="radio"/> | broker |

It is recommended to divide user interface (UI) processing into three distinct roles by using the _____ pattern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | broker |
| <input type="radio"/> | pipe-and-Filter |
| <input checked="" type="radio"/> | MVC or MVP |
| <input type="radio"/> | shared-data |

[Click to Get Answer & Move to Next Question](#)

_____ is the process of verifying what the users have access to.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------------|
| <input type="radio"/> | Communication |
| <input checked="" type="radio"/> | Authorization |
| <input type="radio"/> | Logging and instrumentation |
| <input type="radio"/> | Authentication |

_____ is the process of verifying what the users have access to.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------------|
| <input type="radio"/> | Communication |
| <input checked="" type="radio"/> | Authorization |
| <input type="radio"/> | Logging and instrumentation |
| <input type="radio"/> | Authentication |

For designing an effective logging and instrumentation strategy, _____ may be required in legal proceedings to prove the wrongdoing of individuals.

Select the correct option

<input checked="" type="radio"/>	Log files
<input type="radio"/>	Binary files
<input type="radio"/>	Regular files

_____ is the term used to refer to a visitor's time browsing a web site.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | Navigation |
| <input checked="" type="radio"/> | Session |
| <input type="radio"/> | Latency |
| <input type="radio"/> | Frequency |

Session expiry (timeout) is very important in web applications to achieve -----.

Select the correct option

 Reload Math Equations

security

efficiency

usability

performance

At the time of designing an efficient and secure session-management strategy, for security reasons, use _____.

Select the correct option

<input type="radio"/>	Navigation
<input checked="" type="radio"/>	Session Expiry
<input type="radio"/>	Request Processing

_____ is the action of checking or proving the accuracy of something.


Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Validation
<input type="radio"/>	Testing
<input type="radio"/>	Assessment
<input type="radio"/>	Recognition

For web applications, it is recommended to design validation strategy to _____malicious input.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------------|
| <input type="radio"/> | constrain and sanitize |
| <input type="radio"/> | constrain |
| <input type="radio"/> | reject |
| <input checked="" type="radio"/> | constrain, reject, and sanitize |

Designing an effective validation solution, use _____ validation for security.

Select the correct option

<input type="radio"/>	Admin-side
<input checked="" type="radio"/>	Server-side
<input type="radio"/>	Tester-side
<input type="radio"/>	Client-side

In a layered architecture, the software application is divided into various _____ layers, with each layer located on top of a lower layer.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Horizontal
<input type="radio"/>	Parallel
<input type="radio"/>	Vertical
<input type="radio"/>	Contiguous

N-tier architecture also known as a _____architecture.

Select the correct option

<input type="radio"/>	Three-tier
<input checked="" type="radio"/>	Multi-tier
<input type="radio"/>	Two-tier

At the time of designing presentation layer, use _____ validation to improve user experience and responsiveness.

Select the correct option

<input type="radio"/>	Admin-side
<input type="radio"/>	Tester-side
<input type="radio"/>	Server-side
<input checked="" type="radio"/>	Client-side

In web applications design, the user interaction logic should be _____the UI components.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | decoupled from |
| <input type="radio"/> | compared with |
| <input type="radio"/> | combined with |
| <input type="radio"/> | merged with |

At the time of designing presentation layer, use _____ validation to improve user experience and responsiveness.

Select the correct option

Admin-side

Client-side

Tester-side

For performance improvement in web applications, it is recommended to cache the _____ only .

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------------|
| <input type="radio"/> | main page |
| <input type="radio"/> | index page |
| <input checked="" type="radio"/> | static pages or parts of pages |
| <input type="radio"/> | dynamic pages |

The _____ layer coordinates the application, performs detailed processes and makes logical decisions.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Data
<input checked="" type="radio"/>	Business
<input type="radio"/>	Physical
<input type="radio"/>	Presentation

At the time of designing business layer for your Web application, design business entities that represent the real world data, and use these to pass data between _____.

Select the correct option

<input checked="" type="radio"/>	Components
<input type="radio"/>	Users
<input type="radio"/>	Business-critical operations
<input type="radio"/>	Web services

In web applications, the _____ layer implements the business logic and workflows.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Communication |
| <input type="radio"/> | Presentation |
| <input type="radio"/> | Data |
| <input checked="" type="radio"/> | Business |

Click to Save Answer & Move to Next Question

It is recommended to design a separate _____ layer to hide the details of the database from other layers of the web application.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Application
<input checked="" type="radio"/>	Data
<input type="radio"/>	Presentation
<input type="radio"/>	Business

At the time of designing a web application, _____ is used to access external services using service agents.

Select the correct option

<input type="radio"/>	Presentation Layer
<input checked="" type="radio"/>	Data Layer
<input type="radio"/>	Service Layer

The _____ layer provides services and data for the business layer.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input checked="" type="radio"/> | Data |
| <input type="radio"/> | Application |
| <input type="radio"/> | Business |
| <input type="radio"/> | Presentation |

At the time of designing a web application, _____ is used to access external services using service agents.

Select the correct option

<input type="radio"/>	Service Layer
<input checked="" type="radio"/>	Data Layer
<input type="radio"/>	Business Layer
<input type="radio"/>	Presentation Layer

In web applications design, it is recommended to consider _____common business logic functions.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------|
| <input type="radio"/> | excluding |
| <input type="radio"/> | ignoring |
| <input checked="" type="radio"/> | centralizing and reusing |
| <input type="radio"/> | decentralizing |

The _____ layer coordinates the application, performs detailed processes and makes logical decisions.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | Physical |
| <input type="radio"/> | Presentation |
| <input type="radio"/> | Data |
| <input checked="" type="radio"/> | Business |


Consider designing a separate service layer if you plan to expose your _____ logic using a web service.

Select the correct option

<input type="radio"/>	Coding
<input checked="" type="radio"/>	Business
<input type="radio"/>	Formal
<input type="radio"/>	Informal

It is recommended to design the services (in service-oriented web applications) to be _____, assuming that the same message request may arrive multiple times.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Idempotent
<input type="radio"/>	Mirrored
<input type="radio"/>	Static
<input type="radio"/>	Dynamic

It is recommended to consider designing a separate _____ if your applications' business layer is being deployed on a remote tier, or if you want to expose the business logic using a web service.

Select the correct option

 Reload Math Equations

- connection pooling
- database
- application layer
- service layer



Designing a separate business layer to implement the business logic and workflows _____ the testability of your application.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Reduces
<input checked="" type="radio"/>	Improves

----- is a measure of how well your system or components allow you to create test criteria and execute tests to determine if the criteria are met.

Select the correct option

 Reload Math Equations

- Usability
- Testing
- Testability
- Test suite

[Click to Show Answer & Move to Next Question](#)

You should consider testability when designing your architecture because it makes it easier to diagnose problems earlier and reduce _____ cost.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------------|
| <input type="radio"/> | Requirements specification |
| <input type="radio"/> | Testing |
| <input checked="" type="radio"/> | Maintenance |
| <input type="radio"/> | Deployment |

Which of the following statements is **not true** about web applications' performance?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input checked="" type="radio"/> | Avoid batch operations, as it maximizes round trips across boundaries. |
| <input type="radio"/> | Always avoid unnecessary round trips over the network. |
| <input type="radio"/> | Implementing caching techniques improve performance and scalability. |
| <input type="radio"/> | Performance is a non-functional requirement. |

In web applications, batch operations are performed to _____ round trips across boundaries.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Minimize
<input type="radio"/>	Maximize

At the time of designing security mechanism for your web application, consider _____ and digitally signing any sensitive data that is sent across the network.

Select the correct option

- Logging
- Analyzing
- Decrypting
- Encrypting

It is recommended to design a security strategy for web applications and implement _____ to protect your application from a range of threats.

Select the correct option

 Reload Math Equations

- Authentication and authorization
- authentication, authorization, and data validation
- data validation
- verification and validation

Which of the following statements is **not true** about security considerations in web applications?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | Consider the use of input validation and data validation at every trust boundary. |
| <input type="radio"/> | Consider implementing a strong authorization mechanism to protect business logic. |
| <input checked="" type="radio"/> | Consider the use of relying on client-side validation only. |
| <input type="radio"/> | Consider the use of authentication at every trust boundary. |

At the time of deploying a Web application, you might need to consider _____ trade-offs.

Select the correct option

<input type="radio"/>	Testing
<input checked="" type="radio"/>	Design
<input type="radio"/>	Security

Question # 2 of 3

Time Left: 00:00:00

When deploying a web application, It is recommended to use _____ deployment to achieve better scalability and to allow each layer to be secured separately.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Distributed |
| <input type="radio"/> | Non-distributed |

When deploying a web application, It is recommended to use _____ deployment to maximize performance.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Distributed |
| <input checked="" type="radio"/> | Non-distributed |

Click to Save Answer & Move to Next Question

When deploying a web application, it is recommended to take into account how layer and component location will affect the _____ of the application.

Select the correct option

 Reload Math Equations

- scalability, and security
- performance and scalability
- performance and security
- performance, scalability, and security

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When deploying a web application on multiple servers, the use of _____ helps to maximize response times, resource utilization, and throughput.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Load balancing |
| <input type="radio"/> | De-multiplexing |
| <input type="radio"/> | Multiplexing |
| <input type="radio"/> | Paging |


We can use _____ to distribute requests on multiple servers so that they can be handled by different Web servers.

Select the correct option

<input checked="" type="radio"/>	Load balancing
<input type="radio"/>	Load increasing
<input type="radio"/>	Power balancing

When deploying a web application on multiple servers, it is recommended to use _____ to distribute requests so that they are handled by different web servers.

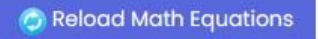
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Multiplexing |
| <input checked="" type="radio"/> | Load balancing |
| <input type="radio"/> | Paging |
| <input type="radio"/> | De-multiplexing |

----- provides an elastic set of resources through the use of virtual machines, virtual networks, and virtual file systems.

Select the correct option

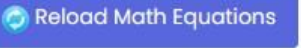
 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Data mining |
| <input type="radio"/> | Big data |
| <input type="radio"/> | Data warehousing |
| <input checked="" type="radio"/> | Cloud computing |

[Click to Save Answer & Move to Next Question](#)

The term _____ is generally used to describe data centers available to many users over the Internet.

Select the correct option

 Reload Math Equations

- Big data
- Cloud computing
- Data warehousing
- Data mining

_____ relies on sharing of resources to achieve coherence and economies of scale.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Cloud computing |
| <input type="radio"/> | Data mining |
| <input type="radio"/> | Big data |
| <input type="radio"/> | Data warehousing |

_____ is the on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Data mining |
| <input type="radio"/> | Data warehousing |
| <input checked="" type="radio"/> | Cloud computing |
| <input type="radio"/> | Big data |

_____ relies on sharing of resources to achieve coherence and economies of scale.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Data warehousing |
| <input type="radio"/> | Big data |
| <input type="radio"/> | Data mining |
| <input checked="" type="radio"/> | Cloud computing |

The term _____ is generally used to describe data centers available to many users over the Internet.

Select the correct option

 Reload Math Equations

- Big data
- Cloud computing
- Data mining
- Data warehousing

Click to Save Answer & Move to Next Question

In Cloud computing, services and resources are available over the network to a _____ collection of clients, independent of location and device.

Select the correct option

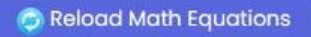
 Reload Math Equations

<input type="radio"/>	Homogeneous
<input checked="" type="radio"/>	Heterogeneous

Click to Save Answer & Move to Next Question

The cloud provider can dynamically assign physical and virtual resources to consumers, according to their instantaneous demands through a process called _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Resource pooling |
| <input type="radio"/> | Multi-tasking |
| <input type="radio"/> | DHCP |
| <input type="radio"/> | Multi-tenancy |

Storage, processing, memory, network bandwidth, and virtual machines related to cloud computing are examples of _____.

Select the correct option

<input type="radio"/>	Hosts
<input checked="" type="radio"/>	Resources
<input type="radio"/>	Clouds
<input type="radio"/>	Services

In _____ model, the capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, including OS and applications.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------------|
| <input checked="" type="radio"/> | Infrastructure as a Service (IaaS) |
| <input type="radio"/> | Hardware as a Service (HaaS) |
| <input type="radio"/> | Platform as a Service (PaaS) |
| <input type="radio"/> | Software as a Service (SaaS) |

In _____ the consumer uses applications run on a cloud where they can be as varied as email, calendars, video streaming, and real-time collaboration.

Select the correct option

<input checked="" type="radio"/>	Software as a Service (SaaS)
<input type="radio"/>	Private Cloud Deployment
<input type="radio"/>	Infrastructure as a Service (IaaS)
<input type="radio"/>	Platform as a Service (PaaS)

The primary purpose of an organization that owns a _____ infrastructure is not the selling of cloud services.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Private cloud
<input type="radio"/>	Public cloud

----- is the use of a single application that is responsible for supporting distinct classes or users.

Select the correct option

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | Resource Pooling |
| <input type="radio"/> | Ubiquitous Network Access |
| <input type="radio"/> | Rapid Elasticity |
| <input checked="" type="radio"/> | Multi-Tenancy |

In _____ model, a variety of services are provided to the consumer, which can include various database options, load-balancing options, availability options, and development environments.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> | Platform as a Service (PaaS) |
| <input type="radio"/> | Software as a Service (SaaS) |
| <input type="radio"/> | Hardware as a Service (Haas) |
| <input checked="" type="radio"/> | Infrastructure as a Service (IaaS) |

Question # 2019

Time Left: 00:00:00

The cloud provider can dynamically assign physical and virtual resources to consumers, according to their instantaneous demands through a process called _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Multi-tenancy |
| <input type="radio"/> | Multi-tasking |
| <input type="radio"/> | DHCP |
| <input checked="" type="radio"/> | Resource pooling |

In a multi-tenant application the _____ is responsible for avoiding incompatibilities for older versions.

Select the correct option

<input type="radio"/>	System Analyst
<input type="radio"/>	Database administrator
<input checked="" type="radio"/>	Vendor
<input type="radio"/>	IT department

Storage, processing, memory, network bandwidth, and virtual machines related to cloud computing are examples of _____ .

Select the correct option

<input type="radio"/>	Clouds
<input type="radio"/>	Services
<input checked="" type="radio"/>	Resources

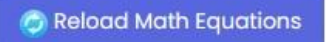
Stateless services, Data stored across zones and _____ are the options utilized by the architect to improve availability quality attributes in cloud environment.

Select the correct option

<input type="radio"/>	Distributed data
<input checked="" type="radio"/>	Graceful degradation
<input type="radio"/>	State full services

"Stateless services – mirroring" and "Data stored across zones – partition" techniques are used as a backup option for the _____ of the cloud services.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Reliability
<input type="radio"/>	Maintainability
<input type="radio"/>	Security
<input checked="" type="radio"/>	Availability

The Cloud is just like a platform, and architecting a system to execute in the cloud, especially using _____, is no different than architecting for any other distributed platform.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------------|
| <input checked="" type="radio"/> | Infrastructure as a Service (IaaS) |
| <input type="radio"/> | Hardware as a Service (HaaS) |
| <input type="radio"/> | Platform as a Service (PaaS) |
| <input type="radio"/> | Software as a Service (SaaS) |

Various concerns of an application, such as UI, business logic, authorization, logging, and database access, are not kept separate in a _____ architecture.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | pipe-and-filter |
| <input type="radio"/> | micro-service |
| <input checked="" type="radio"/> | monolithic |
| <input type="radio"/> | layered |

Monolithic architecture is typically well suited for _____ applications.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | distributed |
| <input type="radio"/> | very large |
| <input type="radio"/> | service-oriented |
| <input checked="" type="radio"/> | small |

Which of the following statements is not true about monolithic applications?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | Maintainability is low. |
| <input checked="" type="radio"/> | Migration to a different technology is very easy. |
| <input type="radio"/> | They typically have better performance. |
| <input type="radio"/> | Components are tightly coupled. |

In _____ architecture, the components are interconnected and interdependent, resulting in a tightly coupled code.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | pipe-and-filter |
| <input type="radio"/> | layered |
| <input checked="" type="radio"/> | monolithic |
| <input type="radio"/> | micro-service |

In service-oriented architecture, a _____ is a part of the software application that performs a specific task, providing functionality to other parts of the same software application or to other software applications.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | component |
| <input type="radio"/> | design pattern |
| <input checked="" type="radio"/> | service |
| <input type="radio"/> | class |

Click to Save Answer & Move to Next Question

_____ is an architectural pattern for developing software systems by creating loosely coupled, interoperable services that work together to automate business processes.

Select the correct option

- | | |
|----------------------------------|--------------------------------|
| <input type="radio"/> | Function-oriented architecture |
| <input type="radio"/> | State-oriented architecture |
| <input checked="" type="radio"/> | Service-oriented architecture |

A key aspect of service-oriented architecture is that it decomposes application logic into smaller units that can be reused and _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | distributed |
| <input type="radio"/> | migrated |
| <input type="radio"/> | outsourced |
| <input type="radio"/> | duplicated |

In service-oriented architecture, services can vary in size and one _____ can be composed of multiple other services to accomplish its task.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | class |
| <input type="radio"/> | architecture |
| <input type="radio"/> | structure |
| <input checked="" type="radio"/> | service |

The key difference of service-oriented architecture from a traditional distributed architecture is _____.

Select the correct option

 Reload Math Equations

- the use of web services
- its loosely coupled nature
- how its core components are designed
- its distributed nature

Service-oriented architecture (SOA) achieves a _____, which is a design principle that separates a software system into parts, with each part addressing a distinct concern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | dynamic programming |
| <input type="radio"/> | design pattern |
| <input type="radio"/> | architectural pattern |
| <input checked="" type="radio"/> | separation of concerns |

Service-oriented architecture (SOA) achieves a _____, which is a design principle that separates a software system into parts, with each part addressing a distinct concern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | dynamic programming |
| <input type="radio"/> | design pattern |
| <input type="radio"/> | architectural pattern |
| <input checked="" type="radio"/> | separation of concerns |

Service-Oriented Architecture increases _____ which allows for the sharing of data and the reuse of logic.

Select the correct option

<input checked="" type="radio"/>	Intrinsic Interoperability
<input type="radio"/>	Extrinsic Interoperability
<input type="radio"/>	Federation
<input type="radio"/>	Vendor Diversity

In service-oriented architecture, organizations have the flexibility to choose whether they want to replace certain systems, allowing them to use a phased approach to_____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | installation |
| <input checked="" type="radio"/> | migration |
| <input type="radio"/> | maintenance |
| <input type="radio"/> | deployment |

[Click to Save Answer & Move to Next Question](#)

Due to its design nature, service-oriented architecture works very well with _____development methodologies.

Select the correct option

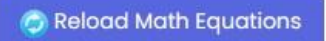
 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | agile |
| <input type="radio"/> | waterfall |
| <input type="radio"/> | sequential |
| <input type="radio"/> | prototyping |

Click to Save Answer & Move to Next Question

Business logic, in the form of business entities and business processes, exists in the form of physical _____ within service-oriented architecture.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input type="radio"/> | patterns |
| <input type="radio"/> | designs |
| <input type="radio"/> | classes |
| <input checked="" type="radio"/> | services |


Growing larger in scope and functionality as compared to legacy systems will add _____ to a software system.

Select the correct option

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | Better Performance |
| <input type="radio"/> | Portability |
| <input type="radio"/> | More Scope |
| <input checked="" type="radio"/> | Complexity |

In micro-service architecture, a micro-service should be a _____ to the consumers of the service, hiding its implementation and complexity.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | prototype |
| <input checked="" type="radio"/> | black box |
| <input type="radio"/> | architectural pattern |
| <input type="radio"/> | design pattern |

A microservice architecture is well-suited for _____ software systems.

Select the correct option

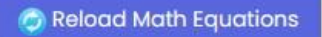
- | | |
|----------------------------------|-------------------|
| <input type="radio"/> | Small and Simple |
| <input type="radio"/> | Indecomposable |
| <input checked="" type="radio"/> | Large and Complex |
| <input type="radio"/> | Unanalysable |

Question # 3 of 3

Time Left: 73 sec(s)

A _____ architecture is particularly well-suited for large and/or complex software systems.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | MVC |
| <input type="radio"/> | monolithic |
| <input checked="" type="radio"/> | micro-service |
| <input type="radio"/> | MVP |

The _____ architecture pattern builds software applications using small, autonomous, independently versioned, self-contained services.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | cloud computing |
| <input type="radio"/> | MVC |
| <input checked="" type="radio"/> | micro-service |
| <input type="radio"/> | monolithic |

Click to Save Answer & Move to Next Question

Question # 1019

Time Left: 00:00:00

In micro-service architecture, all services are autonomous and _____ deployable.

Select the correct option

 Reload Math Equations

- combinedly
- batch-wise
- independently
- mutually

----- architecture has better fault isolation as compared to other architectures.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | micro-service |
| <input type="radio"/> | MVC |
| <input type="radio"/> | monolithic |
| <input type="radio"/> | MVP |

A characteristics of microservice architecture is to provide _____ data storage capability.

Select the correct option

<input checked="" type="radio"/>	Independent
<input type="radio"/>	Huge
<input type="radio"/>	Lesser

With _____, a single application uses multiple programming languages in its implementation.

Select the correct option

 Reload Math Equations

- pair programming
- polyglot persistence
- multi-threading
- polyglot programming

[Click on the correct answer to this question](#)

Question # 2 of 3

Time Left: 62 sec(s)

-----architecture gives you the option of using multiple programming languages, runtimes, frameworks, and data storage technologies.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | pipe-and-filter |
| <input type="radio"/> | client-server |
| <input type="radio"/> | monolithic |
| <input checked="" type="radio"/> | micro-service |

With _____ in micro-service architecture, multiple persistence options are used within a single application.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | multi-threading |
| <input type="radio"/> | pair programming |
| <input checked="" type="radio"/> | polyglot persistence |
| <input type="radio"/> | polyglot programming |

-----applications do not need to make a call to the database 2nd time, as session info is stored on the server itself, hence it is faster.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Stateful
<input type="radio"/>	Stateless

Typical problems with _____ applications are Load balancing and scalability.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Stateless
<input checked="" type="radio"/>	Stateful

Any data that flows through a _____ service is typically transitory and the state is stored only in a separate back-end service like a database.

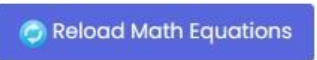
Select the correct option

 Reload Math Equations

<input type="radio"/>	stateful
<input checked="" type="radio"/>	Stateless

_____ is very important for decomposing a complex system into a right set of micro-services.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | development skills |
| <input type="radio"/> | deploying environment |
| <input checked="" type="radio"/> | domain knowledge |
| <input type="radio"/> | programming tools |

A micro-service application with services that are too_____ results in a large number of services, and hence increases the overall complexity.

Select the correct option

 Reload Math Equations

coarse-grained

fine-grained

Architects' focus is on the boundaries and interfaces. Internal details are dealt at the _____ level.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------|
| <input type="radio"/> | requirements elicitation |
| <input type="radio"/> | deployment |
| <input checked="" type="radio"/> | design |
| <input type="radio"/> | maintenance |

----- drives the software system which is being developed.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | Business domain knowledge |
| <input type="radio"/> | Deployment environment |
| <input type="radio"/> | Development tools |
| <input type="radio"/> | Testing team |

The _____ is a collection of hotspots that you can use to analyze your application architecture.

Select the correct option

 Reload Math Equations

- Architecture pattern
- Application type
- Architecture style
- Architecture frame

_____ helps in organizing and thinking about key engineering decisions.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | Architecture style |
| <input type="radio"/> | Application type |
| <input checked="" type="radio"/> | Architecture frame |
| <input type="radio"/> | Architecture pattern |

Which of the following is not a component of the Architecture Meta-Frame?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | Quality attributes |
| <input type="radio"/> | Architecture frame |
| <input type="radio"/> | Application types |
| <input checked="" type="radio"/> | Interpreters |

_____ helps in organizing and thinking about key engineering decisions.

Select the correct option

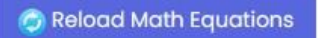
 Reload Math Equations

- Architecture style
- Architecture frame
- Application type
- Architecture pattern

Click to Save Answer & Move to Next Question

_____ helps you to turn core features such as caching, data access, validation, and workflow into actions.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input checked="" type="radio"/> | Architecture frame |
| <input type="radio"/> | Application type |
| <input type="radio"/> | Architecture style |
| <input type="radio"/> | Architecture pattern |

_____ is the process of allowing an authenticated user to access the resources by checking whether the user has access rights to the system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | Authorization |
| <input type="radio"/> | Authentication |
| <input type="radio"/> | Logging and instrumentation |
| <input type="radio"/> | Communication |

Click to Save Answer & Move to Next Question

_____ is the process to ensure and confirms a user's identity and whether the user is registered or not to access particular data.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | Authentication |
| <input type="radio"/> | Communication |
| <input type="radio"/> | Authorization |
| <input type="radio"/> | Logging and instrumentation |

Which of the following does not belong to the category of the Architecture Frame?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Cashing |
| <input type="radio"/> | Workflow |
| <input checked="" type="radio"/> | Constraints |
| <input type="radio"/> | Communication |

Click to Save Answer & Move to Next Question

_____ is achieved using passwords, biometrics, MFA or OTPs etc.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------------|
| <input type="radio"/> | Logging and instrumentation |
| <input checked="" type="radio"/> | Authentication |
| <input type="radio"/> | Communication |
| <input type="radio"/> | Authorization |

Click to Save Answer & Move to Next Question

----- is the process of verifying what the users have access to.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | Authorization |
| <input type="radio"/> | Logging and instrumentation |
| <input type="radio"/> | Communication |
| <input type="radio"/> | Authentication |

[Click to Get Answer & Mark Question](#)

----- is achieved through settings maintained by security teams.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Normalization |
| <input type="radio"/> | Authentication |
| <input type="radio"/> | De-normalization |
| <input checked="" type="radio"/> | Authorization |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 85 sec(s)

The Architecture Meta-Frame was developed by _____ Corporation.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | Apple |
| <input type="radio"/> | Oracle |
| <input type="radio"/> | Google |
| <input checked="" type="radio"/> | Microsoft |

In case of a client/server application, data caching on the client machine is not possible.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	False
<input type="radio"/>	True

Caching solutions can be employed in different tiers / layers of a system.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

_____ communication refers to the exchange of data between two or more parties without the requirement for all the recipients to respond immediately (not in real-time).

Select the correct option

 Reload Math Equations

- Formal
- Asynchronous
- Visual
- Synchronous

[Click to Save Answer & Move to Next Question](#)

Communication strategies usually deals with _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | data in use |
| <input checked="" type="radio"/> | data in motion |
| <input type="radio"/> | data at rest |
| <input type="radio"/> | data in use and in motion |

Which of the following is not an example of asynchronous communication?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | Phone call |
| <input type="radio"/> | Text messaging |
| <input type="radio"/> | Letters |
| <input type="radio"/> | Email |

-----communication means that two or more people exchange information in real-time.

Select the correct option

 Reload Math Equations

- Visual
- Written
- Synchronous
- Asynchronous

 Reload Math Equations

Communication strategies usually deals with _____.

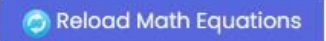
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | data in motion |
| <input type="radio"/> | data in use |
| <input type="radio"/> | data at rest |
| <input type="radio"/> | data in use and in motion |

A _____ in a database system must maintain atomicity, consistency, isolation, and durability – commonly known as ACID properties:

Select the correct option

 Reload Math Equations

<input type="radio"/>	Relation
<input type="radio"/>	Thread
<input checked="" type="radio"/>	Transaction
<input type="radio"/>	Tuple

Question # 2 of 3

Time Left: 57 sec(s)

_____ states that a transaction must be treated as an atomic unit, that is, either all of its operations are executed or none.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Isolation
<input type="radio"/>	Consistency
<input type="radio"/>	Durability
<input checked="" type="radio"/>	Atomicity

_____ is the ability to execute more than one programs or tasks simultaneously.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | Efficiency |
| <input checked="" type="radio"/> | Concurrency |
| <input type="radio"/> | Scalability |
| <input type="radio"/> | Performance |

Click to Save Answer & Move to Next Question

-----strategies describe techniques for abstracting and accessing data in your data store.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------------------|
| <input type="radio"/> | Data communication |
| <input checked="" type="radio"/> | Data access |
| <input type="radio"/> | Caching and state |
| <input type="radio"/> | Authentication and authorization |

..... strategies describe techniques for abstracting and accessing data in your data store.

Select the correct option

 Reload Math Equations

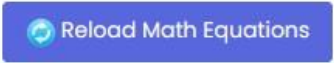
- Authentication and authorization
- Data access
- Data communication
- Caching and state

Question # 2013

Time Left: 00 sec(s)

----- is single row of a table, which contains a single record for that relation.

Select the correct option

 Reload Math Equations

- Primary key
- Foreign key
- Tuple
- Attribute

[Click to Show Answer & Move to Next Question](#)

In relational databases, data is stored in the form of _____.

Select the correct option


 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Word Files |
| <input type="radio"/> | Excel sheets |
| <input checked="" type="radio"/> | Tables |
| <input type="radio"/> | Notepad Files |

[Click to Give Answer & Move to Next Question](#)

----- is concerned with the Look & Feel of the software application.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Authorization |
| <input type="radio"/> | Authentication |
| <input type="radio"/> | Communication |
| <input checked="" type="radio"/> | User experience |

Click to Save Answer & Move to Next Question

_____ is the interaction between the users and your application.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Communication |
| <input type="radio"/> | Authorization |
| <input checked="" type="radio"/> | User experience |
| <input type="radio"/> | Authentication |

Click to Save Answer & Move to Next Question

_____ refers to how easy a product is to use.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | Performance |
| <input type="radio"/> | Efficiency |
| <input type="radio"/> | Reliability |
| <input checked="" type="radio"/> | Usability |

Click to Save Answer & Move to Next Question

----- is/are a design decision with zero degrees of freedom.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------|
| <input type="radio"/> | Testing |
| <input type="radio"/> | Coding |
| <input checked="" type="radio"/> | Constraints |
| <input type="radio"/> | System architecture |


Click to Save Answer & Move to Next Question

Question # 3 of 3

Time left: 03 sec(s)

Product recommendations is also called _____ recommendations.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Structural |
| <input type="radio"/> | Process |
| <input type="radio"/> | Design |
| <input type="radio"/> | Client-Server |

A three-tier layered service-oriented architecture may be the right thing for a _____enterprise's web-based B2B system but completely wrong for an avionics application.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Micro
<input type="radio"/>	Medium
<input type="radio"/>	Small
<input checked="" type="radio"/>	Large

Question # 1 of 3

Time Left: 74 sec(s)

Modern thinking on architecture assumes that your design will _____ during the implementation stages of the application.

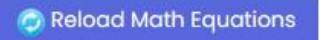
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | be fixed |
| <input type="radio"/> | remain constant |
| <input type="radio"/> | remain unchanged |
| <input checked="" type="radio"/> | evolve over time |

Agile software development refers to a set of software development methodologies based on _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | prototyping |
| <input type="radio"/> | linear development |
| <input checked="" type="radio"/> | iterative development |
| <input type="radio"/> | sequential development |

Create your architecture with evolution in mind so that it will be _____ in terms of adapting to requirements that are not fully known at the start of the design process.

Select the correct option

<input checked="" type="radio"/>	Agile
<input type="radio"/>	Steady
<input type="radio"/>	Consistent
<input type="radio"/>	Stable

Question # 1012

Time left: 00:56:15

Use threat models to understand_____.

Select the correct option

Risks and vulnerabilities

Issues and risks

Issues and vulnerabilities

Question # 1 of 2

Time Left: 47 sec(s)

Use threat models to understand_____.

Select the correct option



Risks and vulnerabilities



Issues and risks



Issues and vulnerabilities

Question # 2 of 2

Time Left: 40 sec(s)

We can use _____ of the architecture to communicate and share the design efficiently with all the stakeholders.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | models and views |
| <input type="radio"/> | models |
| <input type="radio"/> | views |
| <input checked="" type="radio"/> | models, views and other visualizations |

Which approach you should consider while refining your architecture?

Select the correct option

<input type="radio"/>	Updated and adaptive
<input checked="" type="radio"/>	Incremental and iterative
<input type="radio"/>	Iterative and adaptive

In case of a new architecture, your initial baseline is the first _____ architectural design from which candidate architectures will be built.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | detailed |
| <input checked="" type="radio"/> | high-level |
| <input type="radio"/> | low-level |
| <input type="radio"/> | comprehensive |

----- architectures are used to iteratively test and improve the software architecture.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | Basic |
| <input checked="" type="radio"/> | Candidate |
| <input type="radio"/> | Baseline |
| <input type="radio"/> | High-level |

A _____ architecture describes the existing system (how your system looks today).

Select the correct option


 Reload Math Equations

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | modern |
| <input type="radio"/> | complete |
| <input type="radio"/> | candidate |
| <input checked="" type="radio"/> | baseline |

 Reload Math Equations

Use _____ architectures to get the big picture right, and use _____ architectures to iteratively test and improve your architecture.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | Standard , original |
| <input type="radio"/> | Original , standard |
| <input checked="" type="radio"/> | Baseline , candidate |
| <input type="radio"/> | Candidate , baseline |

Click to Save Answer & Move to Next Question

_____ is an end-to-end test of a small segment of the application.

Select the correct option

 Reload Math Equations

- Candidate architecture
- Application type
- Architectural spike
- Baseline architecture

[Click to Save Answer & Move to Next Question](#)

The purpose of a/an _____ is to reduce risk and to test potential paths.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | Candidate architecture |
| <input type="radio"/> | Application type |
| <input checked="" type="radio"/> | Architectural spike |
| <input type="radio"/> | Baseline architecture |

An architectural spike will result in a/an that can be tested against a baseline.

Select the correct option

 Reload Math Equations

- quality attribute
- key hot spots
- application type
- candidate architecture

The purpose of an architectural spike is to reduce _____ and to test potential paths.

Select the correct option

<input checked="" type="radio"/>	Risk
<input type="radio"/>	Effort
<input type="radio"/>	Time
<input type="radio"/>	Cost

A use case diagram depicts the _____ functionality of a system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | low-level |
| <input type="radio"/> | comprehensive |
| <input checked="" type="radio"/> | high-level |
| <input type="radio"/> | detailed |

Architecturally significant use cases, exercise enough of the design to be useful in _____ the architecture.

Select the correct option

<input checked="" type="radio"/>	Evaluating
<input type="radio"/>	Supervision
<input type="radio"/>	Handling

The _____ represents a canonical view of a typical application architecture, using a layered style to separate functional areas into separate layers.

Select the correct option

 Reload Math Equations

- Reference application architecture
- 4+1 View model
- Architectural drivers
- Architecture meta-frame

Reference application architecture is developed by _____ corporation.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | Adobe |
| <input type="radio"/> | IBM |
| <input checked="" type="radio"/> | Microsoft |
| <input type="radio"/> | Google |

The _____ demonstrates how a typical application might interact with its users, external systems, data sources, and services.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> | Architecture meta-frame |
| <input type="radio"/> | Architectural drivers |
| <input checked="" type="radio"/> | Reference application architecture |
| <input type="radio"/> | 4+1 View model |

Which of the following is not an example of architectural styles?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | N-tier |
| <input checked="" type="radio"/> | Encapsulation |
| <input type="radio"/> | Object-oriented |
| <input type="radio"/> | Client/server |

Question # 3 of 3

Time Left: 50 sec(s)

The choice of architectural styles depends upon:

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | Application type only |
| <input type="radio"/> | Scenarios only |
| <input checked="" type="radio"/> | Application type, scenarios, as well as requirements and constraints |
| <input type="radio"/> | Requirements and constraints only |

Question # 1 of 3

Time Left: 70 sec(s)

Each software architecture pattern consists of a _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | context and a problem statement |
| <input checked="" type="radio"/> | context, problem statement, and a solution |
| <input type="radio"/> | problem statement and a solution |
| <input type="radio"/> | problem statement |

A / an _____ is a solution to a recurring problem that is well understood, in a particular context.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------------|
| <input type="radio"/> | architecture frame |
| <input type="radio"/> | application type |
| <input type="radio"/> | architecture class |
| <input checked="" type="radio"/> | software architecture pattern |

Click to Save Answer & Move to Next Question

-----codify knowledge and experience into a solution that we can reuse.

Select the correct option

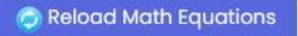
 Reload Math Equations

- | | |
|----------------------------------|--------------------------------|
| <input type="radio"/> | Application type |
| <input type="radio"/> | Quality attribute |
| <input type="radio"/> | Architecture frame |
| <input checked="" type="radio"/> | Software architecture patterns |

Click to Save Answer & Move to Next Question

A / an _____ is a solution to a recurring problem that is well understood, in a particular context.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------------|
| <input checked="" type="radio"/> | software architecture pattern |
| <input type="radio"/> | architecture class |
| <input type="radio"/> | application type |
| <input type="radio"/> | architecture frame |

Good object oriented design is specific to knowledge about polymorphism, inheritance and abstraction.

Select the correct option

 Reload Math Equations

True



False



_____ provides us a set of guidelines to structure our systems to avoid future evolutionary problems.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | Simple association |
| <input type="radio"/> | Symmetric pattern |
| <input checked="" type="radio"/> | Design pattern |
| <input type="radio"/> | Organized solution |

Software architecture patterns are similar to design patterns, except that they are broader in scope and are applied at the _____.

Select the correct option

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | Planning level |
| <input type="radio"/> | Programming level |
| <input type="radio"/> | Design level |
| <input checked="" type="radio"/> | Architecture level |

Question # 2 of 3

Time Left: 73 sec(s)

-----are broader in scope and are applied at the software architecture level.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Constraints |
| <input checked="" type="radio"/> | Architecture patterns |
| <input type="radio"/> | Design patterns |
| <input type="radio"/> | Coding paradigms |

Click to Save Answer & Move to Next Question

_____ is a grouping of design decisions that provide a high-level structure and behavior for software systems.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | Coding paradigm |
| <input checked="" type="radio"/> | Architecture pattern |
| <input type="radio"/> | Constraints |
| <input type="radio"/> | Design pattern |

----- are more fine-grained and are used at the software implementation level.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Design patterns |
| <input type="radio"/> | Architecture patterns |
| <input type="radio"/> | Coding paradigms |
| <input type="radio"/> | Constraints |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 65 sec(s)

The most published patterns (in literature) are _____ patterns.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------------|
| <input checked="" type="radio"/> | component-and-connector (C&C) |
| <input type="radio"/> | allocation |
| <input type="radio"/> | deployment |
| <input type="radio"/> | module |

----- show how the system will relate to non-software structures in its environment.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Dynamic structures |
| <input checked="" type="radio"/> | Deployment structures |
| <input type="radio"/> | Static structures |
| <input type="radio"/> | Module structures |

_____ are the implementation units of the software system.

Select the correct option

 Reload Math Equations

- Allocation structures
- Dynamic structures
- Static structures
- Deployment structures

Patterns can be categorized by the _____ type of elements that they show.

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Prototype |
| <input type="radio"/> | Architectural |
| <input type="radio"/> | Significant |
| <input checked="" type="radio"/> | Dominant |

-----focus on the way the elements interact with each other at runtime to carry out the system's functions.

Select the correct option

 Reload Math Equations

- Allocation structures
- Deployment structures
- Static structures
- Dynamic structures

[Click to Save Answer & Move to Next Question](#)

_____ provide the structure and main components of the software system being built.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Design patterns |
| <input type="radio"/> | Constraints |
| <input checked="" type="radio"/> | Architecture patterns |
| <input type="radio"/> | Coding paradigms |

Click to Save Answer & Move to Next Question

The _____ divides the software into units called layers.

Select the correct option

Factory method pattern


Layered pattern

Builder pattern

Singleton pattern

The layered pattern divides the software system into units called layers, where each layer is a grouping of _____ that offers a cohesive set of services.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------|
| <input type="radio"/> | classes |
| <input type="radio"/> | objects |
| <input checked="" type="radio"/> | modules |
| <input type="radio"/> | design |

Click to Save Answer & Move to Next Question

In Layered pattern (whether the layers are open or closed), each layer is _____ the layers above it.

Select the correct option

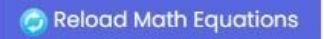
 Reload Math Equations

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | dependent on |
| <input checked="" type="radio"/> | independent of |
| <input type="radio"/> | reliant on |
| <input type="radio"/> | conditional on |

Click to Save Answer & Move to Next Question

In a layered architecture, the software application is divided into various _____ layers, with each layer located on top of a lower layer.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Vertical
<input type="radio"/>	Parallel
<input type="radio"/>	Contiguous
<input checked="" type="radio"/>	Horizontal

----- layers provide layers of isolation, which makes code easier to change, write, and understand.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input type="radio"/> | Parallel |
| <input checked="" type="radio"/> | Closed |
| <input type="radio"/> | Open |
| <input type="radio"/> | Adjacent |

Maintainability is low in _____ layers because multiple layers can call into another layer, increasing the number of dependencies and making changes more difficult.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input checked="" type="radio"/> | open |
| <input type="radio"/> | closed |
| <input type="radio"/> | parallel |
| <input type="radio"/> | adjacent |

With a _____ layer, requests that are flowing down the stack from the layer above must go through it and cannot bypass it.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input type="radio"/> | open |
| <input type="radio"/> | parallel |
| <input checked="" type="radio"/> | closed |
| <input type="radio"/> | adjacent |

[Click to Save Answer & Move to Next Question](#)

When partitioning application logic, _____ are a way to organize functionality and components.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Layers |
| <input type="radio"/> | Classes |
| <input type="radio"/> | Structures |
| <input type="radio"/> | Tiers |

Tiers are _____ separation.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input checked="" type="radio"/> | physical |
| <input type="radio"/> | units |
| <input type="radio"/> | module |
| <input type="radio"/> | logical |

Layers are _____ separation.

Select the correct option



Module



Units



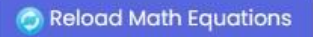
Logical

Question # 1 of 3

Time Left: 36 sec(s)

Applications using a layered architecture may have higher levels of _____if more than one application can reuse the same layer.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input checked="" type="radio"/> | reusability |
| <input type="radio"/> | usability |
| <input type="radio"/> | security |
| <input type="radio"/> | availability |

Dependencies between layers can be _____ in a layered architecture, which further reduces complexity.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | prioritized |
| <input type="radio"/> | increased |
| <input checked="" type="radio"/> | minimized |
| <input type="radio"/> | ignored |

[Click to Save Answer & Move to Next Question](#)

When an application using a layered architecture is deployed to different tiers, _____ is / are increased.

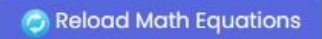
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------|
| <input checked="" type="radio"/> | Scalability and availability |
| <input type="radio"/> | Availability |
| <input type="radio"/> | Agility |
| <input type="radio"/> | Scalability |

Although the different layers can be designed to be independent, a requirement change may require changes in multiple layers, hence this type of coupling lowers the overall _____ of the software application.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Reusability
<input checked="" type="radio"/>	Agility
<input type="radio"/>	Availability
<input type="radio"/>	Scalability

When layers are deployed to separate physical tiers, there is an additional cost of _____.

Select the correct option

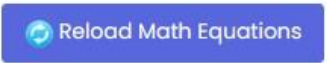
 Reload Math Equations

- | | |
|----------------------------------|--------------------------|
| <input type="radio"/> | Monetary |
| <input checked="" type="radio"/> | Performance and Monetary |
| <input type="radio"/> | Performance |
| <input type="radio"/> | Nothing |

Click to Save Answer & Move to Next Question

----- are also known as component-and-connector (C&C) structures.

Select the correct option

 Reload Math Equations

- Deployment structures
- Static structures
- Allocation structures
- Dynamic structures Correct



Client-server architecture, also known as a _____ architecture.

Select the correct option

<input checked="" type="radio"/>	Two-tier
<input type="radio"/>	Three-tier
<input type="radio"/>	Single-tier

When the server contains a significant portion of the logic and is handling a large share of the workload, then this type of client is known as a

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | Thin client |
| <input type="radio"/> | Super client |
| <input type="radio"/> | Thick client |
| <input type="radio"/> | Master client |

Question # 3 of 3

Time Left: 81 sec(s)

When the client contains a significant portion of the logic and is handling a large share of the workload, it is known as a _____.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Master client |
| <input checked="" type="radio"/> | Thick client |
| <input type="radio"/> | Thin client |
| <input type="radio"/> | Super client |

----- focus on the way the elements interact with each other at runtime to carry out the system's functions.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Allocation structures |
| <input type="radio"/> | Deployment structures |
| <input type="radio"/> | Static structures |
| <input checked="" type="radio"/> | Dynamic structures |

The _____ tier is sometimes referred to as the application tier.

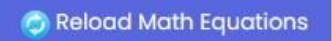
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | Presentation |
| <input type="radio"/> | Software |
| <input type="radio"/> | Data |
| <input checked="" type="radio"/> | Business |

The _____ tier provides services and data for the business tier.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | Business |
| <input checked="" type="radio"/> | Data |
| <input type="radio"/> | Application |
| <input type="radio"/> | Presentation |

The _____ tier provides functionality for the application's user interface.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | Business |
| <input type="radio"/> | Application |
| <input type="radio"/> | Data |
| <input checked="" type="radio"/> | Presentation |

Click to Save Answer & Move to Next Question

N-tier architecture also known as a _____ architecture.

Select the correct option

<input checked="" type="radio"/>	Multi-tier
<input type="radio"/>	Three-tier
<input type="radio"/>	Two-tier

Which of the following statements is **not true** in the context of layer bridging in layered architecture.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | Any layer can use any other layer immediately below it. |
| <input type="radio"/> | Any layer can use any of other layers below it. |
| <input type="radio"/> | Any layer can use the "side car" containing common utilities. |
| <input checked="" type="radio"/> | Any layer can use any other layer above it. |

_____ deals with mapping from software structures to the system's organizational, developmental, installation, and execution environments.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | C&C structures |
| <input type="radio"/> | Dynamic structures |
| <input type="radio"/> | Static structures |
| <input checked="" type="radio"/> | Allocation structures |

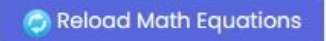
Components are deployed onto _____ in order to execute in allocation structure.

Select the correct option

- | | | |
|----------------------------------|----------------------------|---------|
| <input type="radio"/> | System | |
| <input type="radio"/> | Both Hardware and Software | |
| <input checked="" type="radio"/> | Hardware | Correct |
| <input type="radio"/> | Software | |

Shared Data (or repository) Pattern is an example of _____ Patterns.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | Allocation |
| <input type="radio"/> | Layered |
| <input type="radio"/> | Module |
| <input checked="" type="radio"/> | C&C type |

----- pattern is a fundamental building block of the distributed systems.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------|
| <input type="radio"/> | Module |
| <input checked="" type="radio"/> | Broker |
| <input type="radio"/> | Unit |
| <input type="radio"/> | Static |

The broker pattern separates users of services from providers of services by inserting an intermediary, called a _____.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Service
<input type="radio"/>	Server
<input type="radio"/>	Client
<input checked="" type="radio"/>	Broker

Question # 3 of 3

Time Left: 34 sec(s)

The question that arise in our minds while implementing a system that has been developed from a collection of complex services is _____.

Select the correct option

 Reload Math Equations

- How the system's graphic will be easy to use?
- How the systems will look?
- How the systems will interoperate?
- How the system's mobile application will be developed?

[Click to Save Answer & Move to Next Question](#)

Question # 1 of 3

Time Left: 65 sec(s)

In the broker pattern, due to the presence of the broker, the client remains completely ignorant of the _____ of the server.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input checked="" type="radio"/> | identity, location, and characteristics |
| <input type="radio"/> | identity, and location |
| <input type="radio"/> | identity, and characteristics |
| <input type="radio"/> | identity |

In the context of the broker pattern, with the use of the broker, the complexity of the software system _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | decreases |
| <input type="radio"/> | remains stable |
| <input checked="" type="radio"/> | increases |
| <input type="radio"/> | subside |

Which of the following statements is **not true** about broker pattern:

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | Broker can be a single point of failure for a large and complex system. |
| <input type="radio"/> | Broker can potentially be bottlenecks for communication. |
| <input type="radio"/> | Broker can be an obvious point of attack from a security perspective. |
| <input checked="" type="radio"/> | The use of broker reduces the complexity of the software system. |

Layered pattern is an example of _____ patterns.

Select the correct option

 Reload Math Equations

- C&C type
- Client-Server
- Module Correct
- Allocation

[Click to Save Answer & Move to Next Question](#)

MVC stands for _____.

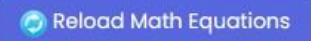
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Mobile view component |
| <input type="radio"/> | Model view component |
| <input checked="" type="radio"/> | Model view controller |
| <input type="radio"/> | Mobile view connector |

MVC is a type of _____ pattern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/> | module |
| <input type="radio"/> | allocation |
| <input type="radio"/> | static |

Click to Save Answer & Move to Next Question

----- pattern provides a structure for building user interfaces and provides a separation of the different responsibilities involved.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | MVC |
| <input type="radio"/> | Module |
| <input type="radio"/> | Broker |
| <input type="radio"/> | Pipe-and-Filter |

Question # 1 of 3

Time Left: 70 sec(s)

The pattern of interaction in the _____ pattern is characterized by successive transformations of streams of data.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | broker |
| <input type="radio"/> | MVC |
| <input type="radio"/> | client - server |
| <input checked="" type="radio"/> | pipe-and-filter |

The pattern of interaction in the _____ pattern is characterized by successive transformations of streams of data.

Select the correct option


 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | broker |
| <input type="radio"/> | MVC |
| <input type="radio"/> | client - server |
| <input checked="" type="radio"/> | pipe-and-filter |

Click to Save Answer & Move to Next Question

Pipe-and-Filter is a type of _____ pattern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | module |
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/> | static |
| <input type="radio"/> | allocation |

[Click to Save Answer & Move to Next Question](#)

Question # 2 of 3

Time Left: 83 sec(s)

In_____ pattern, a software system is divided into reusable, loosely coupled components (connected to each other) with simple, generic interaction mechanisms, that (being independent) can execute in parallel.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | pipe-and-filter |
| <input type="radio"/> | client - server |
| <input type="radio"/> | broker |
| <input type="radio"/> | MVC |

Question # 3019

Time Left: 00:00:00

The pattern of interaction in the _____ pattern is characterized by successive transformations of streams of data.

Select the correct option

 Reload Math Equations

- broker
- MVC
- client - server
- pipe-and-filter

In _____ pattern, the independent processing at each step supports reuse, parallelization, and simplified reasoning about overall behavior of the system.

Select the correct option

 Reload Math Equations

- broker
- MVC
- pipe-and-filter
- client - server

 Reload Math Equations

Which of the following statements is **not true** about pipe-and-filter architectural pattern?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | A filter typically does not know the identity of its upstream or downstream filters. |
| <input checked="" type="radio"/> | It is always a good choice for an interactive system. |
| <input type="radio"/> | Having large numbers of independent filters can add substantial amounts of computational overhead. |
| <input type="radio"/> | It may not be appropriate for long-running computations without any checkpoint/restore mechanism. |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 71 sec(s)

----- Views are very important for asking questions about the system's runtime properties.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input checked="" type="radio"/> | Component-and-Connector |
| <input type="radio"/> | Modules |
| <input type="radio"/> | Static structures |
| <input type="radio"/> | Deployment structures |

In client-server pattern, the _____ can be a performance bottleneck and it can be a single point of failure.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | clients |
| <input checked="" type="radio"/> | server |
| <input type="radio"/> | clients and server |
| <input type="radio"/> | services |

Click to Save Answer & Move to Next Question

In client-server pattern (a type of C&C pattern), components are -----.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------|
| <input checked="" type="radio"/> | clients and servers |
| <input type="radio"/> | servers |
| <input type="radio"/> | clients |
| <input type="radio"/> | software protocol |

Click to Save Answer & Move to Next Question

Client-server pattern is a type of _____ pattern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | module |
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/> | deployment |
| <input type="radio"/> | allocation |

Click to Save Answer & Move to Next Question

In shared-data pattern, there are several data accessors and at least _____shared-data store(s).

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------|
| <input checked="" type="radio"/> | one |
| <input type="radio"/> | two |
| <input type="radio"/> | zero |
| <input type="radio"/> | three |

Shared-data pattern is a type of _____ pattern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | allocation |
| <input type="radio"/> | deployment |
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/> | module |

Click to Save Answer & Move to Next Question

Which of the following statements is **not true** about shared-data pattern?

Select the correct option


 Reload Math Equations

- This pattern does not support modifiability.
- The producers and consumers of the shared data may be tightly coupled.
- The shared-data store may be a performance bottleneck.
- The shared-data store is potentially a single point of failure.

Click to Save Answer & Move to Next Question

-----embody decisions as to how the system will relate to non-software structures in its environment.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | C&C structures |
| <input type="radio"/> | Static structures |
| <input type="radio"/> | Dynamic structures |
| <input checked="" type="radio"/> | Allocation structures |

Click to Save Answer & Move to Next Question

----- are also known as deployment structures.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> | Component-and-Connector structures |
| <input checked="" type="radio"/> | Allocation structures |
| <input type="radio"/> | Static structures |
| <input type="radio"/> | Dynamic structures |

Tiers can be created to group components of similar functionality; in which case it is a _____ pattern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | deployment |
| <input type="radio"/> | module |
| <input checked="" type="radio"/> | component-and-connector |
| <input type="radio"/> | allocation |

Click to Save Answer & Move to Next Question

Multi-tier pattern, when describe mapping software elements to computing elements, makes it a/an _____ pattern.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | C&C |
| <input type="radio"/> | MVC |
| <input checked="" type="radio"/> | Allocation Correct |
| <input type="radio"/> | Broker |

[Click to Open Answer & Mark this Question](#)

In _____ architecture, the components are interconnected and interdependent, resulting in a tightly coupled code.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | micro-service |
| <input type="radio"/> | layered |
| <input type="radio"/> | pipe-and-filter |
| <input checked="" type="radio"/> | monolithic |

In _____ user interface, business logic, authorization and database access like components work as a single unit resulting in tightly coupled code.

Select the correct option


 Reload Math Equations

- | | |
|----------------------------------|-------------------------------|
| <input type="radio"/> | Layered Architecture |
| <input type="radio"/> | MVC Architecture |
| <input checked="" type="radio"/> | Monolithic Architecture |
| <input type="radio"/> | Service-Oriented Architecture |

Click to Save Answer & Move to Next Question

Various concerns of an application, such as UI, business logic, authorization, logging, and database access, are not kept separate in a _____ architecture.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | pipe-and-filter |
| <input type="radio"/> | layered |
| <input checked="" type="radio"/> | monolithic |
| <input type="radio"/> | micro-service |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 78 sec(s)

A _____ architecture is one in which a software application is designed to work as a single, self-contained unit.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | pipe-and-filter |
| <input type="radio"/> | micro-service |
| <input checked="" type="radio"/> | monolithic |
| <input type="radio"/> | Layered |

_____ is a drawback in Monolithic applications because a change in one part is more likely to affect other parts of the application.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | Easy to Scale |
| <input type="radio"/> | Loose Coupling |
| <input checked="" type="radio"/> | Low Maintainability |
| <input type="radio"/> | High Maintainability |

Due to the tightly coupled components, it is difficult to make changes to the monolithic applications (a change in one part is more likely to affect other parts), thus decreasing the _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | maintainability |
| <input type="radio"/> | performance |
| <input type="radio"/> | efficiency |
| <input type="radio"/> | usability |

Monolithic architecture is typically well suited for _____ applications.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | distributed |
| <input type="radio"/> | very large |
| <input type="radio"/> | service-oriented |
| <input checked="" type="radio"/> | small |

In designing web applications we can implement loose coupling between different layers with the help of _____ mechanism.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Specification |
| <input type="radio"/> | Polymorphism |
| <input type="radio"/> | Inheritance |
| <input checked="" type="radio"/> | Abstraction |

Click to Save Answer & Move to Next Question

Which of the following statements is **not true** about "Layering in web applications"?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | It allows to monitor and optimize the performance of each layer separately. |
| <input type="radio"/> | Layering is used to partition an application logically. |
| <input checked="" type="radio"/> | Layering decreases scalability of the web applications. |
| <input type="radio"/> | It helps to create maintainable code. |

[Click to Save Answer & Move to Next Question](#)

We can consider using a/an _____ to allow Web server to process other incoming requests in long-running or blocking operations.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | Top to Bottom Approach |
| <input checked="" type="radio"/> | Asynchronous approach |
| <input type="radio"/> | Synchronous approach |
| <input type="radio"/> | Multiplexed approach |

----- and output buffering is used to reduce round trips b/w the browser and the web server.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input type="radio"/> | Mapping |
| <input type="radio"/> | Tunning |
| <input checked="" type="radio"/> | Caching |
| <input type="radio"/> | Layering |

Click to Save Answer & Move to Next Question

Question # 1012

Time Left: 01 sec(s)

Instead of sending sensitive data in plain text form we need to consider using _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------------------|
| <input checked="" type="radio"/> | Secure Sockets Layer (SSL) Encryption |
| <input type="radio"/> | User Datagram Protocol (UDP) |
| <input type="radio"/> | Transmission Control Protocol (TCP) |
| <input type="radio"/> | File Transfer Protocol |

We should design our web application to _____users whenever they cross a trust boundary.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | educate |
| <input type="radio"/> | locate |
| <input type="radio"/> | truncate |
| <input checked="" type="radio"/> | authenticate |

_____ is basically a checklist of things which must be handled while developing your design.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | Web Application Testing |
| <input type="radio"/> | Web Application Design |
| <input type="radio"/> | HTML and CSS |
| <input checked="" type="radio"/> | Web Application Frame |

Click to Save Answer & Move to Next Question

----- can leave an application vulnerable to spoofing attacks, dictionary attacks, session hijacking, and other types of attack.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------|
| <input type="radio"/> | Audit and Log activities |
| <input type="radio"/> | Strong Authorization |
| <input type="radio"/> | Strong Passwords |
| <input checked="" type="radio"/> | Weak Authorization |

Which of the following statements is **not true** about "Authentication in web applications" ?

Select the correct option

 Reload Math Equations

- Strong password policies are required (i.e password length and complexity, and password expiration).
- Strong account management practices are required, such as account lockouts and expirations.
- We need to identify trust boundaries within web application layers.
- Never use platform-supported authentication mechanisms. Always develop your own custom mechanisms.

 Submit Answer  Reload Math Equations

Improper or weak _____ strategy leads to information disclosure, data tampering, and elevation of privileges.

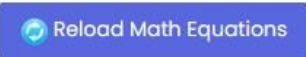
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Authorization |
| <input type="radio"/> | Normalization |
| <input type="radio"/> | De-normalization |
| <input type="radio"/> | Authentication |

Improper or weak _____ strategy leads to information disclosure, data tampering, and elevation of privileges.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Authorization |
| <input type="radio"/> | Normalization |
| <input type="radio"/> | De-normalization |
| <input type="radio"/> | Authentication |

_____ determines the tasks that an authenticated identity can perform, and identifies the resources that can be accessed.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | De-normalization |
| <input type="radio"/> | Normalization |
| <input type="radio"/> | Authentication |
| <input checked="" type="radio"/> | Authorization |

_____ determines the tasks that an authenticated identity can perform, and identifies the resources that can be accessed.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Authorization |
| <input type="radio"/> | De-normalization |
| <input type="radio"/> | Authentication |
| <input type="radio"/> | Normalization |

 Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 84 sec(s)

Caching solutions can be employed in different tiers / layers of a system.

Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

Click to Save Answer & Move to Next Question

In case of a client/server application, data caching on the client machine is not possible.

Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

At the time of cache designing, avoid caching _____ data.

Select the correct option

<input checked="" type="radio"/>	Volatile
<input type="radio"/>	Stable
<input type="radio"/>	Persistent

For performance improvement, it is required to cache data in a _____format.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | encrypted |
| <input checked="" type="radio"/> | ready-to-use |
| <input type="radio"/> | volatile |
| <input type="radio"/> | disposable |

Incorrect caching choices and poor caching design can degrade _____ of the software application.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | Performance and security |
| <input type="radio"/> | Security and responsiveness |
| <input type="radio"/> | Performance and responsiveness |
| <input checked="" type="radio"/> | Performance, security and responsiveness |

Question # 1 of 3

Time Left: 58 sec(s)

Correct _____ in your web pages prevents sensitive exception details from being revealed to the user.

Select the correct option

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | Web crawling |
| <input type="radio"/> | Event Handling |
| <input checked="" type="radio"/> | Exception Handling |

A/an _____ is an event, which occurs during the execution of a program that disrupts the normal flow of the program's instructions.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | association |
| <input checked="" type="radio"/> | exception |
| <input type="radio"/> | composition |
| <input type="radio"/> | aggregation |

Which of the following statements is **not true** about exception management?

Select the correct option

 Reload Math Equations

Do not reveal sensitive information through exception details.

Always use exceptions to control the logical flow of your application.

Design a global error handler to catch unhandled exceptions.

Log exception related information in an error file.

Click to Save Answer & Move to Next Question

For designing an effective logging and instrumentation strategy, _____ may be required in legal proceedings to prove the wrongdoing of individuals.

Select the correct option

<input type="radio"/>	Socket files
<input checked="" type="radio"/>	Log files
<input type="radio"/>	Binary files

-----can be used to detect suspicious activities as well as legal proceedings to prove the wrongdoing of individuals.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | Architectural styles |
| <input checked="" type="radio"/> | Log files |
| <input type="radio"/> | Design patterns |
| <input type="radio"/> | Transactions |

Designing a consistent _____ structure for your application will help to minimize user confusion as well as reduce the apparent complexity of the application.

Select the correct option

<input checked="" type="radio"/>	Navigation
<input type="radio"/>	Database
<input type="radio"/>	Presentation

Designing a consistent navigation structure for your application will _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | maximize user confusion |
| <input checked="" type="radio"/> | reduce the apparent complexity of the application |
| <input type="radio"/> | decrease the performance of the application |
| <input type="radio"/> | decrease the usability of the application |

It is recommended to design the navigation strategy in a way that separates it from the _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | processing logic |
| <input type="radio"/> | Internet |
| <input type="radio"/> | user |
| <input type="radio"/> | keyboard |

_____ is a well-suited mechanism for designing the page layout.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | C language |
| <input checked="" type="radio"/> | Cascading style sheets |
| <input type="radio"/> | COBOL |
| <input type="radio"/> | Fortran |

Question # 2013

Time Left: 70 sec(s)

It is recommended to design your application so that the page layout can be separated from the specific UI components and _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | UI processing |
| <input type="radio"/> | keyboard |
| <input type="radio"/> | user |
| <input type="radio"/> | Internet |

_____ are the appropriate persons for building the page layout of the web applications.

Select the correct option

 Reload Math Equations

- SQA team members
- Designers
- Developers
- Requirement engineers

A class should contains the functionality that is relates to this class. That make it this class more

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | Virtual |
| <input type="radio"/> | Inherited |
| <input type="radio"/> | Coupled |
| <input checked="" type="radio"/> | Cohesive |

Click to Save Answer & Move to Next Question

Question # 1 of 3

Time Left: 72 sec(s)

The developer should analyze the piece of code that is being extracted to create the extract method and then move this method to the related class using move method refactoring to make that class more cohesive.

Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

When a developer applies refactoring, he must _____ the code.

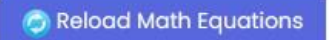
Select the correct option

[Reload Math Equations](#)

- Recycle
- Test
- Delate
- Remove

During refactoring, while a developer creating an extract method, he should update the variable name to make more readable according to the specific functionality placed in extract method.

Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

While applying refactoring on a long method, the developer should repeat the extracting out and moving method processes on the other algorithmic steps available in the same method.

Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

Click to Save Answer & Move to Next Question

Improved cohesion in design will return _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input checked="" type="radio"/> | Ease in modification |
| <input type="radio"/> | Hard to modify |
| <input type="radio"/> | Difficult to modify |
| <input type="radio"/> | Very hard to update |

Once an application has developed and implemented then there is no possibility to add new requirements in the developed and running system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------|
| <input checked="" type="radio"/> | False |
| <input type="radio"/> | True |

Temporary variable cause problem in _____.

Select the correct option


 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Short methods |
| <input type="radio"/> | Programming |
| <input checked="" type="radio"/> | Long methods |
| <input type="radio"/> | C++ language |

Click to Save Answer & Move to Next Question

If a developer encapsulates the expression or formula in a method that holds by temporary variable, it will enhance _____.

Select the correct option

 Reload Math Equations

- Reusability
- Encapsulation
- Inheritance
- Difficult to modify

If a temporary variable holds an expression or formula, it means temporary variable has reusable kind of information.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

Question # 3 of 3

Time Left: 83 sec(s)

Temporary variable cause problem in -----.

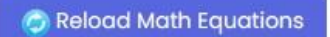
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Short methods |
| <input checked="" type="radio"/> | Long methods |
| <input type="radio"/> | Programming |
| <input type="radio"/> | C++ language |

Object morphing problem may be solved by _____.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | Inheritance |
| <input type="radio"/> | Encapsulation |
| <input type="radio"/> | Difficult to handle |
| <input checked="" type="radio"/> | Strategy design pattern |

Object morphing is a blessing for software developers.

Select the correct option


 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Click to Save Answer & Move to Next Question

Object morphing problem may be solved by _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | Difficult to handle |
| <input checked="" type="radio"/> | Strategy design pattern |
| <input type="radio"/> | Encapsulation |
| <input type="radio"/> | Inheritance |

Click to Save Answer & Move to Next Question

An application is running smoothly, and the developer's fears make him reluctant to refactor.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------------------|
| <input type="radio"/> | Fear of not getting food |
| <input type="radio"/> | Fear of staying a week in office |
| <input type="radio"/> | Fear of weight gain |
| <input checked="" type="radio"/> | Fear of breaking current program |

Question # 2 of 3

Time Left: 59 sec(s)

Why are developers reluctant to perform refactoring?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | Social media addiction |
| <input checked="" type="radio"/> | Lacking of understanding |
| <input type="radio"/> | Because application developed using monolithic architecture |
| <input type="radio"/> | Because application developed using micro services architecture |

One of the reasons is short term focus of developers in performing the refactoring.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

Question # 3 of 3

Time Left: 86 sec(s)

The databases works as global variables.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

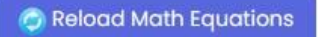
Click to Save Answer & Move to Next Question

Question # 2 of 3

Time Left: 75 sec(s)

The code is hard to change while making changes in the database is easy.


Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Microsoft PowerPoint does not provide different slide views.

Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Click to Save Answer & Move to Next Question

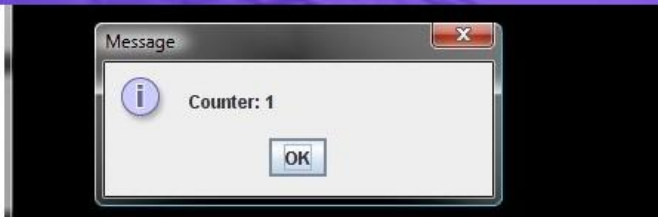
It is not different in mobile and laptop screen heights and widths. That's why a software developer does not consider device display while programming.

Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Click to Save Answer & Move to Next Question



Which of the following suitable name of above interface?

Select the correct option

[Reload Math Equations](#)

- Console based input and output
- GUI based input and output
- Console-based Input and GUI based Output

```
C:\Users\Sasa2\src\comp110>java examples.mvc.ConsoleUI
Counter: 0
1
Counter: 1
-1
Counter: 0
5
Counter: 5
_
```

Which of the following suitable name of above interface?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------|
| <input type="radio"/> | Mobile interface |
| <input checked="" type="radio"/> | Console based interface |
| <input type="radio"/> | Laptop interface |

Question

Result

```
public class MonolithicConsoleUI {  
    public static void main(String[] args) {  
        int counter = 0;  
        while (true) {  
            System.out.println("Counter: " + counter);  
            int nextInput = Console.readInt();  
            if (nextInput == 0) break;  
            counter += nextInput;  
        }  
    }  
}
```

counter variable initializes with Zero in the above code.

✔ - Correct

```
public class MonolithicConsoleUI {  
    public static void main(String[] args) {  
        int counter = 0;  
        while (true) {  
            System.out.println("Counter: " + counter);  
            int nextInput = Console.readInt();  
            if (nextInput == 0) break;  
            counter += nextInput;  
        }  
    }  
}
```


Answer

✓ - Correct

Identify the output command in the above code.

Monolithic application provides just console based user interface.

Select the correct option

 Reload Math Equations

True

False

In model / interactor pattern, model has _____ functionality.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | Different |
| <input type="radio"/> | Recycled |
| <input type="radio"/> | Duplicated |
| <input checked="" type="radio"/> | Common |

A situation in which an application has multiple user interfaces of the same code. It means there is duplicated code. The duplicated code problem will be handled through _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------------|
| <input type="radio"/> | Agile pattern |
| <input checked="" type="radio"/> | Model / Interactor pattern |
| <input type="radio"/> | Waster fall patter |
| <input type="radio"/> | Spiral pattern |

Click to Save Answer & Move to Next Question

Different input and output user interfaces of an application make code

Select the correct option

 Reload Math Equations


- | | |
|----------------------------------|-----------|
| <input type="radio"/> | Easy |
| <input checked="" type="radio"/> | Duplicate |
| <input type="radio"/> | Enhanced |
| <input type="radio"/> | Recycle |

Question # 1 of 1

Time Left: 50 sec(s)

_____ is a major drawback in monolithic user interfaces.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Hybrid code |
| <input type="radio"/> | Mixed interfaces |
| <input type="radio"/> | Simple code |
| <input checked="" type="radio"/> | Code duplication |

MVS has _____ parts.

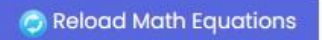
Select the correct option

 Reload Math Equations

- 3
- 2
- 1
- 0

To remove the input and output code duplication in the example given in the video, which technique will be used?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | MVC console View |
| <input type="radio"/> | MVC language |
| <input type="radio"/> | Waterfall MVC |
| <input checked="" type="radio"/> | MVC architectural pattern |

Fundamentally user interface has two parts:

Select the correct option

 Reload Math Equations

- Input and output
- Two output console
- Two input console
- It has only one part

Click to Save Answer & Move to Next Question

User interface is combination of _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Controller and output |
| <input type="radio"/> | Depends on IDE |
| <input type="radio"/> | Inputs and view |
| <input checked="" type="radio"/> | View and controller |

[Click to Save Answer & Move to Next Question](#)

May be there are multiple views, so the question arises how to synchronize view and controller?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------------------|
| <input checked="" type="radio"/> | With the help of observer pattern |
| <input type="radio"/> | With the help of Java |
| <input type="radio"/> | With the help of .net |
| <input type="radio"/> | Waterfall MVC |

Click to Save Answer & Move to Next Question

MVC divided the program logic into _____interconnected elements.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------|
| <input type="radio"/> | Zero |
| <input checked="" type="radio"/> | Three |
| <input type="radio"/> | one |
| <input type="radio"/> | Four |

An architecture acts as a/an _____ between abstract business goals and the final (concrete) resulting system.

Select the correct option

Tool

Design

Observer

Bridge

The software architecture of a system is the _____ needed to reason about the system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | set of structures |
| <input type="radio"/> | instructions |
| <input type="radio"/> | guidelines |
| <input type="radio"/> | relationships |

_____ is a set of elements held together by a relation.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------|
| <input checked="" type="radio"/> | Structure |
| <input type="radio"/> | Software |
| <input type="radio"/> | CPU |
| <input type="radio"/> | Compiler |

_____ is about making fundamental structural choices.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------------------|
| <input type="radio"/> | Software Requirements Specification |
| <input checked="" type="radio"/> | Software Architecture |
| <input type="radio"/> | Software Validation |
| <input type="radio"/> | Software Testing |

Software systems are composed of _____ structures.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input type="radio"/> | Infinite |
| <input checked="" type="radio"/> | Many |
| <input type="radio"/> | Single |
| <input type="radio"/> | Zero |

Most of the times in Agile or spiral-development projects, the architectural decisions are made at the _____ stages.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Early |
| <input checked="" type="radio"/> | Later |
| <input type="radio"/> | Advanced |
| <input type="radio"/> | Initial/Starting |

 Click to Save Answer & Move to Next Question

In an architectural design, the allocation structures are also known as _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | Component-and-Connector (C&C) structures |
| <input checked="" type="radio"/> | Deployment structures |
| <input type="radio"/> | Dynamic structures |
| <input type="radio"/> | Static structures |

In Component-and-Connector (C&C) structures, the components are _____ entities.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | Deployment |
| <input checked="" type="radio"/> | Run-time |
| <input type="radio"/> | Internal |
| <input type="radio"/> | Static |

In an architectural design, the allocation structures are also known as _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | Dynamic structures |
| <input type="radio"/> | Component-and-Connector (C&C) structures |
| <input type="radio"/> | Static structures |
| <input checked="" type="radio"/> | Deployment structures |

 Reload Math Equations

We have _____ broader categories of structures in Architectural design.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input type="radio"/> | Five |
| <input checked="" type="radio"/> | Three |
| <input type="radio"/> | Infinite |
| <input type="radio"/> | Ten |

_____ components are runtime entities / executables.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Dynamic structures |
| <input type="radio"/> | Allocation structures |
| <input type="radio"/> | Deployment structures |
| <input type="radio"/> | Static structures |

Click to Save Answer & Move to Next Question

In layered structure, modules are aggregated (organized) into _____.


Select the correct option

 Reload Math Equations

- Blocks
- Cubes
- Parts
- Layers

-----focus on module decomposition in larger projects.

Select the correct option

 Reload Math Equations

- Deployment structures
- Allocation structures
- Dynamic structures
- Static structures

Class diagram is an example of _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Allocation structures |
| <input type="radio"/> | Deployment structures |
| <input checked="" type="radio"/> | Static structures |
| <input type="radio"/> | Dynamic structures |

Many of the software quality attributes are the _____requirements.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | functional |
| <input checked="" type="radio"/> | non-functional |

Click to Save Answer & Move to Next Question

A structure is _____ if it supports reasoning about the system and its properties.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | architectural |
| <input type="radio"/> | developmental |
| <input type="radio"/> | responsive |
| <input type="radio"/> | computational |

The set of architectural structures is _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------|
| <input type="radio"/> | fixed |
| <input type="radio"/> | limited |
| <input type="radio"/> | fixed and limited |
| <input checked="" type="radio"/> | not fixed |

Click to Save Answer & Move to Next Question

The architecture specifically _____ certain information about elements that is not useful for reasoning about the system.

Select the correct option

- | | |
|----------------------------------|---------|
| <input type="radio"/> | Approve |
| <input checked="" type="radio"/> | Omits |
| <input type="radio"/> | Keeps |
| <input type="radio"/> | Add |

Architectural abstraction is essential to _____ the complexity of the system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input checked="" type="radio"/> | decrease |
| <input type="radio"/> | detect |
| <input type="radio"/> | increase |
| <input type="radio"/> | reject |

An architecture is a/an _____ of a system that selects certain details and omits certain information that is not useful for reasoning about the system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input checked="" type="radio"/> | abstraction |
| <input type="radio"/> | illustration |
| <input type="radio"/> | introduction |
| <input type="radio"/> | description |

Software Architecture is concerned with the _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------------|
| <input checked="" type="radio"/> | public interface |
| <input type="radio"/> | internal implementation details |
| <input type="radio"/> | Objects and Classes |
| <input type="radio"/> | private details |

Even though every system has an architecture, it does not necessarily follow that the architecture is known to _____

Select the correct option

 Reload Math Equations

- Programmer
- Anyone
- Network Admin
- System Admin

Every system includes _____ among them to support some type of reasoning.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input checked="" type="radio"/> | Elements and Relations |
| <input type="radio"/> | Classes |
| <input type="radio"/> | Relations |
| <input type="radio"/> | Elements |

Although every system has an architecture, it is _____ that the architecture is documented.

Select the correct option

 Reload Math Equations

necessary

not necessary

System Architecture is concerned with the total system including _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------------|
| <input type="radio"/> | hardware and software |
| <input type="radio"/> | hardware |
| <input checked="" type="radio"/> | hardware, software, and humans |
| <input type="radio"/> | software |

All types of architectures can be _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> | designed and documented |
| <input type="radio"/> | evaluated |
| <input type="radio"/> | designed |
| <input checked="" type="radio"/> | designed, evaluated and documented |

_____ is concerned with a total system, including hardware, software, and humans.

Select the correct option

 Reload Math Equations

- | | | |
|----------------------------------|-------------------------|---------|
| <input checked="" type="radio"/> | System architecture | Correct |
| <input type="radio"/> | Enterprise architecture | |
| <input type="radio"/> | Hardware architecture | |
| <input type="radio"/> | Software architecture | |

Modern systems are usually too _____ to grasp all at once.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Easy
<input checked="" type="radio"/>	Complex
<input type="radio"/>	Neutral
<input type="radio"/>	Flexible

A/an _____ is a representation of a structure.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input checked="" type="radio"/> | View |
| <input type="radio"/> | element |
| <input type="radio"/> | software |
| <input type="radio"/> | design |

A /an _____ consists of a representation of a set of elements and the relations among them.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input type="radio"/> | design |
| <input type="radio"/> | object |
| <input checked="" type="radio"/> | view |
| <input type="radio"/> | software |

Which of the following statements is not true about software architectures?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---|
| <input type="radio"/> | They consist of structures, which in turn consist of elements and relationships |
| <input type="radio"/> | They answer to requirements |
| <input checked="" type="radio"/> | They all have the same vocabulary and techniques |
| <input type="radio"/> | They are intended to satisfy stakeholders |

 Reload Math Equations

4+1 View Model of Software Architecture was proposed by _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------|
| <input type="radio"/> | Grady Booch |
| <input checked="" type="radio"/> | Philippe Kruchten |
| <input type="radio"/> | Roger Pressman |
| <input type="radio"/> | Ian Sommerville |

----- represents the perspective of the System Engineer.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Physical view |
| <input type="radio"/> | Development view |
| <input type="radio"/> | Logical view |
| <input type="radio"/> | Process view |

----- represents the perspective of the Programmers and Software Managers.

Select the correct option

 Reload Math Equations

- Process view
- Logical view
- Development view
- Physical view

[Click to Save Answer & Move to Next Question](#)

_____ represents the perspective of the End-user.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Process view |
| <input checked="" type="radio"/> | Logical view |
| <input type="radio"/> | Development view |
| <input type="radio"/> | Physical view |

Question # 2 of 3

Time Left: 83 sec(s)

----- represents the perspective of the Integrator.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Physical view |
| <input type="radio"/> | Logical view |
| <input type="radio"/> | Development view |
| <input checked="" type="radio"/> | Process view |

In any _____, the elements are modules of some kind.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input checked="" type="radio"/> | Module structure |
| <input type="radio"/> | Deployment structure |
| <input type="radio"/> | Allocation structure |
| <input type="radio"/> | Dynamic structure |

Static Structures are also known as _____.

Select the correct option



Module Structure



Dynamic Structure



Development Structure

----- are assigned areas of functional responsibility.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Module |
| <input type="radio"/> | Allocation structures |
| <input type="radio"/> | Deployment structures |
| <input type="radio"/> | Dynamic structures |

----- represent a static way of considering the system.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Modules |
| <input type="radio"/> | Deployment structures |
| <input type="radio"/> | Dynamic structures |
| <input type="radio"/> | Allocation structures |

In Dynamic structures, _____ are the communication vehicles among components.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | clients |
| <input type="radio"/> | server |
| <input type="radio"/> | modules |
| <input checked="" type="radio"/> | connectors |

----- are also called Component & Connector Structures.

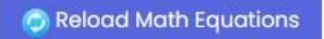
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Deployment structures |
| <input type="radio"/> | Allocation structures |
| <input type="radio"/> | Static structures |
| <input checked="" type="radio"/> | Dynamic structures |

----- are assigned areas of functional responsibility.

Select the correct option

 Reload Math Equations

- Deployment structures
- Allocation structures
- Dynamic structures
- Module

----- represent a static way of considering the system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Deployment structures |
| <input checked="" type="radio"/> | Modules |
| <input type="radio"/> | Dynamic structures |
| <input type="radio"/> | Allocation structures |

----- structures are very useful for Project management.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | C&C |
| <input type="radio"/> | Static |
| <input checked="" type="radio"/> | Allocation |
| <input type="radio"/> | Dynamic |

----- structures are very useful for Configuration management.

Select the correct option

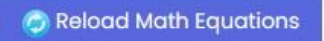
 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Allocation |
| <input type="radio"/> | Dynamic |
| <input type="radio"/> | Static |
| <input type="radio"/> | C&C |

 Reload Math Equations

The _____ structure, which embodies parallelism within the system, is strongly tied to the ease with which a system can be made free of deadlock and performance bottlenecks.

Select the correct option

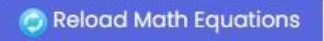
 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | efficiency |
| <input type="radio"/> | availability |
| <input type="radio"/> | security |
| <input checked="" type="radio"/> | concurrency |

 Reload Math Equations

The _____ structure is strongly tied to the achievement of performance, availability, and security goals.

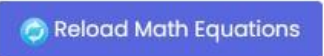
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input checked="" type="radio"/> | deployment |
| <input type="radio"/> | C&C |
| <input type="radio"/> | dynamic |
| <input type="radio"/> | static |

----- structures provide a perspective for reasoning about some of the relevant quality attributes.

Select the correct option

 Reload Math Equations

- Dynamic
- All type of
- Allocation
- Static

[Click to Save Answer & Move to Next Question](#)

In Dynamic structures, _____ are the communication vehicles among components.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | clients |
| <input type="radio"/> | server |
| <input type="radio"/> | modules |
| <input checked="" type="radio"/> | connectors |

In general, mappings between structures are _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | many-to-one |
| <input checked="" type="radio"/> | many to many |
| <input type="radio"/> | one-to-many |
| <input type="radio"/> | one-to-one |

Click to Save Answer & Move to Next Question

Although the structures give different system perspectives, they are not_____.

Select the correct option

<input checked="" type="radio"/>	Independent
<input type="radio"/>	Dependent
<input type="radio"/>	Conditional
<input type="radio"/>	Reliant on

In general, for smaller systems, we prefer _____ structure(s).

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------|
| <input type="radio"/> | many |
| <input type="radio"/> | one |
| <input type="radio"/> | too many |
| <input checked="" type="radio"/> | fewer |

The _____ the system, the more dramatic the difference between these structures tends to be.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------|
| <input type="radio"/> | Smaller |
| <input checked="" type="radio"/> | Larger |
| <input type="radio"/> | Lower |
| <input type="radio"/> | Petite |

Click to Save Answer & Move to Next Question

----- patterns specializes the generic deployment (software-to-hardware allocation) structure.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input checked="" type="radio"/> | Allocation |
| <input type="radio"/> | Module |
| <input type="radio"/> | Layered |
| <input type="radio"/> | C&C type |

Shared Data (or repository) Pattern is an example of _____ Patterns.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------|
| <input type="radio"/> | Allocation |
| <input type="radio"/> | Layered |
| <input type="radio"/> | Module |
| <input checked="" type="radio"/> | C&C type |

Layered pattern is an example of _____ patterns.

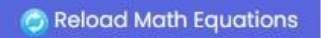
Select the correct option

 Reload Math Equations

- Module
- Allocation
- C&C type
- Client-Server

A three-tier layered service-oriented architecture may be the right thing for a _____enterprise's web-based B2B system but completely wrong for an avionics application.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Large
<input type="radio"/>	Medium
<input type="radio"/>	Small
<input type="radio"/>	Micro

 Click to Save Answer & Move to Next Question

Product recommendations is also called _____ recommendations.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Client-Server |
| <input type="radio"/> | Design |
| <input checked="" type="radio"/> | Structural |
| <input type="radio"/> | Process |

"The architecture should be the product of a single architect or a small group of architects with an identified technical leader". This recommendation holds for _____.

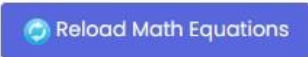
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input checked="" type="radio"/> | Agile, Open Source as well as traditional projects |
| <input type="radio"/> | Agile projects only |
| <input type="radio"/> | Agile and Open Source projects only |
| <input type="radio"/> | Traditional projects only |

Under Process Recommendations, the architecture should lend itself to _____ implementation.

Select the correct option

 Reload Math Equations

- Linear
- Incremental
- Partial
- Runtime

Under Process Recommendations, the architecture should be documented using_____.

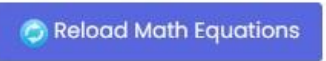
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Forms |
| <input type="radio"/> | Word processing |
| <input checked="" type="radio"/> | Views |
| <input type="radio"/> | Spreadsheets |

There should be a strong connection between the architect(s) and the development team, to avoid ivory tower designs that are -----.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | Robust |
| <input checked="" type="radio"/> | Impractical |
| <input type="radio"/> | Secure |
| <input type="radio"/> | Efficient |

The information-hiding modules should _____ things likely to change, thus insulating the software from the effects of those changes.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | Unwrap |
| <input type="radio"/> | Open |
| <input type="radio"/> | Release |
| <input checked="" type="radio"/> | Encapsulate |

Question # 3 of 3

Time Left: 83 sec(s)

In the context of Product Recommendations, Do not expect a _____ correspondence between modules and components.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | many-to-many |
| <input type="radio"/> | many-to-one |
| <input checked="" type="radio"/> | one-to-one |
| <input type="radio"/> | one-to-many |

The architecture should feature well-defined modules whose functional responsibilities are assigned on the principles of information hiding and

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | integration |
| <input type="radio"/> | hardware |
| <input checked="" type="radio"/> | separation of concerns |
| <input type="radio"/> | software |

[Click to Save Answer & Move to Next Question](#)

The software architecture of a system Comprises of _____ , relations among them and the Properties of both.

Select the correct option

<input type="radio"/>	Software tools
<input checked="" type="radio"/>	Software elements
<input type="radio"/>	Software structures
<input type="radio"/>	Observers

Architectural drivers are inputs into the _____.

Select the correct option

[Reload Math Equations](#)

- | | |
|----------------------------------|-----------------------------------|
| <input checked="" type="radio"/> | Design process |
| <input type="radio"/> | Verification & Validation process |
| <input type="radio"/> | Testing phase |
| <input type="radio"/> | Coding phase |

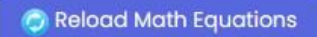
[Click to Show Answer & Move to Next Question](#)

Question # 2 of 3

Time Left: 83 sec(s)

The _____ satisfies Architectural drivers.

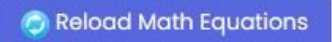
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------|
| <input type="radio"/> | System specifications |
| <input type="radio"/> | Software requirements |
| <input type="radio"/> | Coding |
| <input checked="" type="radio"/> | Software architecture design |

The Architectural drivers _____ the design of the software architecture.

Select the correct option

 Reload Math Equations

Validate

Drive and guide

Test

Verify

----- are the considerations that need to be made for the software system that are architecturally significant.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Design patterns |
| <input checked="" type="radio"/> | Architectural Drivers |
| <input type="radio"/> | Code smells |
| <input type="radio"/> | Data Structures |

Click to Save Answer & Move to Next Question

Question # 5 of 5

Time Left: 80 sec(s)

-----describe what you are doing and why you are doing it.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input checked="" type="radio"/> | Architectural Drivers |
| <input type="radio"/> | Code smells |
| <input type="radio"/> | Testing techniques |
| <input type="radio"/> | Pointers |

Which of the following does not come under the class of Architectural styles:

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Client-Server |
| <input type="radio"/> | Component-based |
| <input checked="" type="radio"/> | Web Application |
| <input type="radio"/> | N-Tier |

Which of the following cannot be considered as a Quality attribute:

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Caching
<input type="radio"/>	Security
<input type="radio"/>	Reusability
<input type="radio"/>	Maintainability

Which of the following is not an Application Type:

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------|
| <input type="radio"/> | Rich Client |
| <input type="radio"/> | Web based |
| <input checked="" type="radio"/> | N-Tier |
| <input type="radio"/> | Mobile based |

Quality attributes cannot be considered as:

Select the correct option

 Reload Math Equations

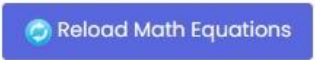
- | | |
|----------------------------------|-----------------------------|
| <input checked="" type="radio"/> | functional requirements |
| <input type="radio"/> | service-level agreements |
| <input type="radio"/> | cross-cutting concerns |
| <input type="radio"/> | non-functional requirements |

Question # 3 of 3

Time Left: 84 sec(s)

----- is a measure of the "goodness" of a product along some dimension of interest to its stakeholders.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | Functional requirement |
| <input type="radio"/> | System specification |
| <input checked="" type="radio"/> | Quality attribute Correct |
| <input type="radio"/> | Software Maintenance |

----- is a testable / measurable property of a system that indicates how well the system satisfies the needs of its stakeholders.

Select the correct option

 Reload Math Equations

- Functional requirement
- Quality attribute Correct
- Software Maintenance
- System specification

Which of the following is not considered as a Quality attribute?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Performance |
| <input type="radio"/> | Maintainability |
| <input checked="" type="radio"/> | Transactions |
| <input type="radio"/> | Portability |

Which of the following cannot be considered as a Quality attribute:

Select the correct option

 Reload Math Equations

<input type="radio"/>	Security
<input type="radio"/>	Maintainability
<input checked="" type="radio"/>	Caching
<input type="radio"/>	Reusability

While developing a software for the Apple Mobile OS, which of the following quality attribute will be given least priority:

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Usability |
| <input type="radio"/> | Security |
| <input checked="" type="radio"/> | Interoperability |
| <input type="radio"/> | Performance |

We need to understand how to _____ Software Quality attributes.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------------------|
| <input type="radio"/> | Refine |
| <input checked="" type="radio"/> | Capture, refine and challenge |
| <input type="radio"/> | Capture |
| <input type="radio"/> | Capture and refine |

Quality attributes have tradeoffs between them.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

_____ defines the capability for components and subsystems to be suitable for use in other applications and in other scenarios.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Manageability |
| <input type="radio"/> | Maintainability |
| <input type="radio"/> | Reliability |
| <input checked="" type="radio"/> | Reusability |

_____ defines the proportion of time that the system is functional and working.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Usability |
| <input checked="" type="radio"/> | Availability |
| <input type="radio"/> | Reliability |
| <input type="radio"/> | Manageability |

----- defines how well the system meets the requirements of the different type of users for good user experience.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Maintainability |
| <input type="radio"/> | Reliability |
| <input type="radio"/> | Availability |
| <input checked="" type="radio"/> | Usability |

_____ is the ability of a system to remain operational over time (the probability that a system will not fail to perform its functionality over a specified interval of time).


Select the correct option

 Reload Math Equations

<input type="radio"/>	Usability
<input type="radio"/>	Manageability
<input checked="" type="radio"/>	Reliability
<input type="radio"/>	Availability

Which of the following is not an Application Type:

Select the correct option

 Reload Math Equations


- | | |
|----------------------------------|--------------|
| <input type="radio"/> | Web based |
| <input checked="" type="radio"/> | N-Tier |
| <input type="radio"/> | Rich Client |
| <input type="radio"/> | Mobile based |

Question # 6919

Time Left: 00:00:00

Constraints can sometimes be _____.

Select the correct option

 Reload Math Equations

- prioritized Correct
- rejected
- accepted
- ignored

[Click to Save Answer & Move to Next Question](#)

----- are designed to support communication between loosely coupled components.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | Rich Internet application |
| <input type="radio"/> | Web application |
| <input type="radio"/> | Rich client application |
| <input checked="" type="radio"/> | Service application |

Which of the following application types is probably the best choice if you want to support data entry with forms in an occasionally connected scenario ?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | Rich client application |
| <input type="radio"/> | Rich Internet application |
| <input type="radio"/> | Web application |
| <input type="radio"/> | Service application |

[Click to go to your 5 Minute Next Question](#)

Our choice of an appropriate application type usually depends on the _____:

Select the correct option

 Reload Math Equations

- Constraints
- User requirements, scenarios and constraints
- User requirements
- Scenarios and constraints

[Click to Save Answer & Move to Next Question](#)

Every application design must take into account the following quality attributes:

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input type="radio"/> | Performance and maintainability only |
| <input type="radio"/> | Security and performance only |
| <input checked="" type="radio"/> | Security, performance, and maintainability |
| <input type="radio"/> | Security and maintainability only |

_____ can support multiple platforms and browsers, and uses the processing and storage resources of the server.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------|
| <input type="radio"/> | Desktop application |
| <input type="radio"/> | Service application |
| <input checked="" type="radio"/> | Web application |
| <input type="radio"/> | Mobile application |

Which of the following application types is probably the best choice if you want to support rich media and graphics delivered over the Internet ?

Select the correct option

 Reload Math Equations

- Service application
- Rich Internet application
- Web application
- Rich client application

[Click to Go to Previous Question](#) [Click to Go to Next Question](#)

Question # 1 of 3

Time Left: 65 sec(s)

It can be used to add an interface to existing system to hide its complexities.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Facade Pattern |
| <input type="radio"/> | Proxy pattern |
| <input type="radio"/> | Visitor pattern |
| <input type="radio"/> | Builder pattern |

_____ can change from one state to another state in response to some inputs.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | State machine |
| <input type="radio"/> | State pattern |
| <input type="radio"/> | Singleton pattern |
| <input type="radio"/> | Input machine |

IoT is the abbreviation for _____.

Select the correct option

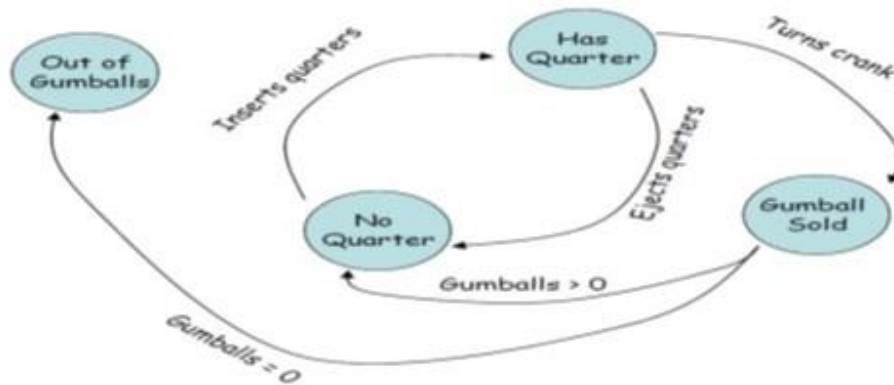
[Reload Math Equations](#)

Internet far things

Things for internet

Internet of things

Issues of internet



Above state diagram has Four states.

Question # 3 of 3

Time Left: 77 sec(s)

It can be used to add an interface to existing system to hide its complexities.

Select the correct option

 Reload Math Equations

- Builder pattern
- Visitor pattern
- Proxy pattern
- Façade Pattern

Façade is a _____.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------|
| <input type="radio"/> | Deceptive rooftop appearance |
| <input type="radio"/> | Foundation appearance |
| <input type="radio"/> | Hidden appearance |
| <input checked="" type="radio"/> | Deceptive outward appearance |

It can be used to add an interface to existing system to hide its complexities.

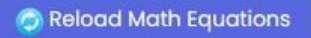
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | Façade Pattern |
| <input type="radio"/> | Proxy pattern |
| <input type="radio"/> | Builder pattern |
| <input type="radio"/> | Visitor pattern |

An object alters its behavior in response to internal state changes.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------|
| <input type="radio"/> | Input machine motivation |
| <input type="radio"/> | State loop motivation |
| <input checked="" type="radio"/> | State pattern motivation |
| <input type="radio"/> | Singleton pattern motivation |

Click to Save Answer & Move to Next Question

In state design pattern, Whenever the request() is made on the context it is delegated to _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Double handle() |
| <input type="radio"/> | Object handle() |
| <input checked="" type="radio"/> | State handle() |
| <input type="radio"/> | Fixed handle() |

In state design pattern the context is the _____ that can have a number of internal states.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------|
| <input checked="" type="radio"/> | Class |
| <input type="radio"/> | Switch statement |
| <input type="radio"/> | Methods |
| <input type="radio"/> | Internet of things (IoT) |

In state pattern, each state is represented by a _____.

Select the correct option

 Reload Math Equations

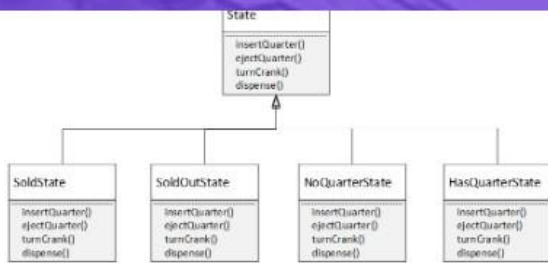
- | | |
|----------------------------------|-------------------------|
| <input checked="" type="radio"/> | Concrete state class |
| <input type="radio"/> | Method concrete class |
| <input type="radio"/> | Abstract concrete class |
| <input type="radio"/> | Object concrete class |

In gumball machine, implement a state class for _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------------|
| <input type="radio"/> | Two states of the machine |
| <input type="radio"/> | One state of the machine |
| <input type="radio"/> | Zero state of the machine |
| <input checked="" type="radio"/> | Every state of the machine |



There are _____ concrete classes in above class diagram.

Select the correct option

[Reload Math Equations](#)

- Five
- Four
- Twenty

In gumball machine, _____ will be responsible for the behavior of the machine when it is in the corresponding state.

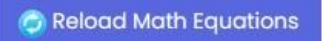
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------|
| <input type="radio"/> | State methods |
| <input checked="" type="radio"/> | State Class |
| <input type="radio"/> | Internet of things (IoT) |
| <input type="radio"/> | State virtual machine |

It is alternate to put lots of conditional statements in the context.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | State pattern |
| <input type="radio"/> | Leveling pattern |
| <input type="radio"/> | Strategy pattern |
| <input type="radio"/> | Singleton pattern |

With strategy design pattern you can change the behavior by associating it with different objects.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

With strategy design pattern you can change the behavior by associating it with different objects.

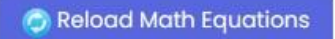
Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

Another name of composite design pattern is _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | General hierarchy pattern |
| <input type="radio"/> | Suitable pattern |
| <input type="radio"/> | Singleton pattern |
| <input type="radio"/> | Composite design pattern |

Problems that are handled with composite design patterns can also be handled with tree data structures.

Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Which of the following design pattern defines "one to many" dependency between objects? If one object changes its state, all its dependents are notified and updated automatically.

Select the correct option

 Reload Math Equations

<input type="radio"/>	Façade
<input type="radio"/>	Abstract factory
<input checked="" type="radio"/>	Observer
<input type="radio"/>	Prototype

Question # 1 of 3

Time Left: 83 sec(s)

Data is available in rows and columns in an excel sheet. You create a bar graph of available data. So, when you change in any row of data, this change will also be made in the bar graph automatically.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

[Click to Save Answer & Move to Next Question](#)

----- pattern is playing an important role in creating bars and charts functionality in Microsoft Excel.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------|
| <input type="radio"/> | Facade |
| <input checked="" type="radio"/> | Observer |
| <input type="radio"/> | Composite |
| <input type="radio"/> | Singleton |

Another name of composite design pattern is _____

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | Singleton pattern |
| <input checked="" type="radio"/> | General hierarchy pattern |
| <input type="radio"/> | Composite design pattern |
| <input type="radio"/> | Suitable pattern |

Changing a running application to decrease the coupling and minimize the design issues etc. But the external behavior of the application will not change.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------|
| <input type="radio"/> | Abstract factoring |
| <input type="radio"/> | Prototype factoring |
| <input type="radio"/> | Façade factoring |
| <input checked="" type="radio"/> | Refactoring |

Improving the design after it has been written.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | Refactoring |
| <input type="radio"/> | Re-joining |
| <input type="radio"/> | Reapplication |
| <input type="radio"/> | Re-prototyping |

Refactoring is nothing but good _____.

Select the correct option

 Reload Math Equations

- Singleton practices
- Conditional practices
- Design practices
- Pattern practices

Refactoring is nothing but good

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | Pattern practices |
| <input type="radio"/> | Conditional practices |
| <input type="radio"/> | Singleton practices |
| <input checked="" type="radio"/> | Design practices |

Click to Save Answer & Move to Next Question

Improving the design after it has been written.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | Re-prototyping |
| <input checked="" type="radio"/> | Refactoring |
| <input type="radio"/> | Reapplication |
| <input type="radio"/> | Re-joining |

Click to Save Answer & Move to Next Question

In modern technology, refactoring is a fundamental technique in the development of software.


Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

Changing a running application to decrease the coupling and minimize the design issues etc. But the external behavior of the application will not change.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------|
| <input type="radio"/> | Abstract factoring |
| <input type="radio"/> | Prototype factoring |
| <input type="radio"/> | Façade factoring |
| <input checked="" type="radio"/> | Refactoring |

Refactoring is applied to change the _____ of the application.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------|
| <input checked="" type="radio"/> | Internal structure |
| <input type="radio"/> | External structure |
| <input type="radio"/> | Foreign structure |
| <input type="radio"/> | Outer structure |

[Click to Save Answer & Move to Next Question](#)

```
if (isSpecialDeal()) {
```

```
    total = price * 0.95;
```

```
    send ();
```

```
}
```

```
else {
```

```
    total = price * 0.98;
```

```
    send ();
```

```
}
```

How above code can be little better (refactor)?

Select the correct option

 Reload Math Equations



Common method will be taken out from the if-else brackets

```
if (isSpecialDeal()) {  
    total = price * 0.95;  
    send ();  
}  
else {  
    total = price * 0.98;  
    send ();  
}
```

Answer

Which method is repeating in above if-else conditions?

Code is very much bugged and unable to run. What will you do?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------|
| <input type="radio"/> | Go to manual system |
| <input type="radio"/> | Refactor |
| <input checked="" type="radio"/> | Rewrite |
| <input type="radio"/> | Destroy all code |

During the development or refactoring the system. What will be the important focus?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Optimization |
| <input checked="" type="radio"/> | Maintainability |
| <input type="radio"/> | Office expenses |
| <input type="radio"/> | Building rent |

Click to Save Answer & Move to Next Question

Code is very much bugged and unable to run. What will you do?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------|
| <input type="radio"/> | Destroy all code |
| <input checked="" type="radio"/> | Rewrite |
| <input type="radio"/> | Refactor |
| <input type="radio"/> | Go to manual system |

Click to Save Answer & Move to Next Question

In real time applications, _____ is very critical criteria to accept the system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | Legacy systems |
| <input checked="" type="radio"/> | Performance |
| <input type="radio"/> | Office environment |
| <input type="radio"/> | User interface |

To make refactoring safe, you should use _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------|
| <input type="radio"/> | Environment patterns |
| <input type="radio"/> | Legacy pattern |
| <input checked="" type="radio"/> | Refactoring pattern |
| <input type="radio"/> | Interface pattern |

The fundamental principle of refactoring that make it safe is _____.

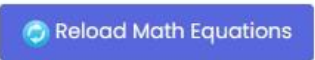
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | Stop testing |
| <input checked="" type="radio"/> | Constantly testing |
| <input type="radio"/> | No testing |
| <input type="radio"/> | Abandon testing |

Refactoring is a/an _____ task.


Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Insignificant |
| <input checked="" type="radio"/> | Critical |
| <input type="radio"/> | Easy |
| <input type="radio"/> | Wasteful |

Bad smells term coined from the below quote _____.

Select the correct option

 Reload Math Equations

- If its skinks, change it.
- If it stinks, do not change it
- If it stinks, do nothing
- If it not stinks, change it

[Click to Save Answer & Move to Next Question](#)

Bad smells term coined from the below quote -----

Select the correct option

 Reload Math Equations

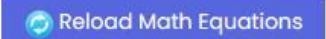
- | | |
|----------------------------------|--------------------------------|
| <input checked="" type="radio"/> | If its skinks, change it. |
| <input type="radio"/> | If it stinks, do not change it |
| <input type="radio"/> | If it stinks, do nothing |
| <input type="radio"/> | If it not stinks, change it |

Question # 1 of 3

Time Left: 83 sec(s)

Refactoring an application, there is need of training, experience and tools.

Select the correct option

 Reload Math Equations

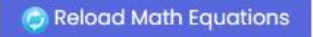
<input type="radio"/>	False
<input checked="" type="radio"/>	True

Question # 2 of 3

Time Left: 85 sec(s)

A good designer may notice bad designs easily.

Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

----- accumulate over time as the program grows.

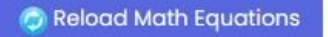
Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------------|
| <input type="radio"/> | Object orientation abusers |
| <input type="radio"/> | Maintainability |
| <input checked="" type="radio"/> | Bloaters |
| <input type="radio"/> | Stinkers |

----- are code, classes and methods that get bigger to such enormous proportions that they are tough to work with.

Select the correct option

 Reload Math Equations

- Couplers
- Realtors
- Bloaters
- Change preventers

 Submit

Bloaters are keep increasing with the passage of time if nobody makes an effort to eradicate them.

Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

Which of the following is not object orientation abusers?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------|
| <input checked="" type="radio"/> | Bad method request |
| <input type="radio"/> | Switch statement |
| <input type="radio"/> | Refused bequest |
| <input type="radio"/> | Temporary field |

In object orientation, switch statement can be replaced by use of _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | Friend function |
| <input checked="" type="radio"/> | Polymorphism |
| <input type="radio"/> | Inheritance |
| <input type="radio"/> | Encapsulation |

Which of the following is a prominent bad smell, if that bad smell will be correct then quality of your object oriented design will be better?

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	Switch statement
<input type="radio"/>	Alternative classes with different interfaces
<input type="radio"/>	Temporary field
<input type="radio"/>	Refused bequest

Click to Save Answer & Move to Next Question

You want to change something at one place but in return, you have to make many changes at other places with respect to get result of first change.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|----------------------------|
| <input type="radio"/> | Refused bequest |
| <input type="radio"/> | Temporary field |
| <input type="radio"/> | Object orientation abusers |
| <input checked="" type="radio"/> | Change preventers |

[Click to Save Answer & Move to Next Question](#)

Change preventers make your program complicated and expensive.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

Click to Save Answer & Move to Next Question

Normally, all bad smells one way or the other are change preventers but there is a specific change preventer's category.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

Click to Save Answer & Move to Next Question

Change preventers, you make change at one place but in return you have to make many changes. Finally, change scope get limited.

Select the correct option


 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Click to Save Answer & Move to Next Question

Comments in the code are _____.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> | Core part of code |
| <input type="radio"/> | Code will not run without comments |
| <input checked="" type="radio"/> | Dispensable |
| <input type="radio"/> | Tester must check about comments |

Click to Save Answer & Move to Next Question

Dispensable make code hard to understand and decrease the code efficiency.

Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Click to Save Answer & Move to Next Question

Dispensable are most critical part of code. If any code missing dispensable, code will not run.

Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Comments in the code fall in divergent change category of bad code smells.

Select the correct option

[Reload Math Equations](#)

<input type="radio"/>	True
<input checked="" type="radio"/>	False Correct

[Click to Save Answer & Move to Next Question](#)

Which of the following is not from the couplers category of bad smells?

Select the correct option

 Reload Math Equations

- Message chain
- Feature envy
- Inappropriate intimacy
- Beautiful chain

Sets of classes that know too much about each other's private details.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------|
| <input type="radio"/> | Middle man |
| <input checked="" type="radio"/> | Inappropriate Intimacy |
| <input type="radio"/> | Feature Envy |
| <input type="radio"/> | Message chain |

A client asks an object for another object and then asks that object for another object etc.

Select the correct option

 Reload Math Equations

- It is not the violation of law of demter
- It is the violation of law of demeter
- It is violation of law of software engineering
- It is violation of object orientation

[Click to Show Answer & Move to Next Question](#)

A class depend on another class's data. It is a behavioral form of _____.

Select the correct option

 Reload Math Equations

- class cycle
- friend functionality
- company class
- god class

Click to Save Answer & Move to Next Question

There is no refactoring guidelines available in the refactoring catalog for large classes.

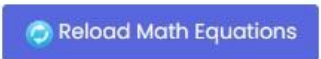
Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Which of the following refactoring is not in the list of refactoring catalogs to remove duplicate code bad smells?

Select the correct option

 Reload Math Equations

- Code remover
- Extract method
- Extract class
- Pull up method

Any change in system that keep the behavior unchanged is called _____.

Select the correct option

 Reload Math Equations

- Rehabilitation
- Refactoring
- Programming
- Structuring

[Click to Show Answer & Move to Next Question](#)

Question # 1 of 4

Time Left: 79 sec(s)

The extract method can use in both situations, like the large class and large method.


Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

----- is a fundamental refactoring that make design better.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------|
| <input checked="" type="radio"/> | Extract method |
| <input type="radio"/> | Polymorphism |
| <input type="radio"/> | Inheritance |
| <input type="radio"/> | Refactoring catalog |

Question # 3 of 4

Time Left: 82 sec(s)

The extract method is most commonly applied to refactor.


Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

When you have a code fragment, you can group logical or algorithmic steps, give them a name, and turn them into a method. This refactoring called -----.

Select the correct option

 Reload Math Equations

- Grouping steps
- Extract method
- Refactoring catalog
- Inheritance


Click to Save Answer & Move to Next Question

QUESTION # 1 OF 3

TIME LEFT: 29 sec(s)

A situation in which you are using a temporary variable to hold an expression then _____ and convert it into method.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------------|
| <input checked="" type="radio"/> | Extract the expression |
| <input type="radio"/> | Re-write whole code |
| <input type="radio"/> | Change IDE |
| <input type="radio"/> | Change the programming language |

Question # 1 of 3

Time Left: 83 sec(s)

```
double basePrice = _quantity * _itemPrice;
```

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------|
| <input type="radio"/> | basePrice is a class |
| <input checked="" type="radio"/> | basePrice is a variable |
| <input type="radio"/> | basePrice is a friend method |
| <input type="radio"/> | basePrice is a method |

Question # 2 of 3

```
double basePrice =  Correct
```

```
if (basePrice > 1000)
```

```
    return basePrice * 0.95;
```

```
else
```

```
    return basePrice * 0.98;
```

Which expression from the above code, you will extract and put into a method.

Question # 3 of 3

Time Left: 84 sec(s)

A situation in which you are using a temporary variable to hold an expression then _____ and convert it into method.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------------------------------|
| <input type="radio"/> | Re-write whole code |
| <input type="radio"/> | Change IDE |
| <input type="radio"/> | Change the programming language |
| <input checked="" type="radio"/> | Extract the expression |

It improves application maintainability and design.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------------------|
| <input type="radio"/> | Refactoring- java method |
| <input checked="" type="radio"/> | Refactoring-move method |
| <input type="radio"/> | Refactoring- C++ main method |
| <input type="radio"/> | Refactoring- any method |

Click to Save Answer & Move to Next Question

Question # 3 of 3

Time Left: 68 sec(s)

Violation of single responsibility principle may fix through -----.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input checked="" type="radio"/> | Refactoring-move method |
| <input type="radio"/> | It cannot be fixed |
| <input type="radio"/> | Single responsibility principle cannot be violated |
| <input type="radio"/> | It can be fixed after apply of C++ main function |

Question # 2 of 3

Time Left: 79 sec(s)

Move method improve the overall _____ of the system.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--|
| <input checked="" type="radio"/> | Cohesion |
| <input type="radio"/> | Interface |
| <input type="radio"/> | Increase number of classes in the code |
| <input type="radio"/> | Increase coupling |

In null object refactoring, replace the _____ with the null object.

Select the correct option

 Reload Math Equations

- Float value
- Null value
- Int value
- Repeated checks

Click to Save Answer & Move to Next Question

To check a null value while populating data from database, developer need to use repeated conditional checks.

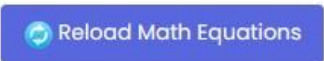
Select the correct option

 Reload Math Equations

<input type="radio"/>	True
<input checked="" type="radio"/>	False

----- use to display content in a web browser.

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|---------|
| <input checked="" type="radio"/> | HTML |
| <input type="radio"/> | Excel |
| <input type="radio"/> | Pascal |
| <input type="radio"/> | Fortran |

Question # 2 of 2

Time Left: 85 sec(s)

In recent times, a video store is like an obsolete concept.

Select the correct option

 Reload Math Equations

<input checked="" type="radio"/>	True
<input type="radio"/>	False

 Reload Math Equations

In a large method, which of the following refactoring is easily applicable?

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------|
| <input type="radio"/> | Code regenerator |
| <input type="radio"/> | Code refactoring |
| <input checked="" type="radio"/> | Extract method |
| <input type="radio"/> | Object orientation |

Click to Save Answer & Move to Next Question

If we have a code to refactor, it is hard to think about where to start refactoring.

Select the correct option

 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

Refactoring through the extract method is most of the common refactoring processes.

Select the correct option


 Reload Math Equations

<input type="radio"/>	False
<input checked="" type="radio"/>	True

Click to see the correct answer for this question

A method return type was double, during refactoring it will be changed to int type. What type of error will come?

Select the correct option

 Reload Math Equations

<input type="radio"/>	Global error
<input checked="" type="radio"/>	Rounding-off error
<input type="radio"/>	Easy error
<input type="radio"/>	No error

While refactoring using extract method, developer should be careful about _____

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|--------------------------|
| <input checked="" type="radio"/> | Method return type |
| <input type="radio"/> | Don't use extract method |
| <input type="radio"/> | Switch type |
| <input type="radio"/> | Programming language |