

LBAW Practice Exam - Answers

Q1. C) The person who benefits from the feature

Explanation: The primary actor is the user interacting with the system to achieve a goal. The developer and system administrator are secondary actors.

Q2. A) Competitor companies

Explanation: Stakeholders are those who have an interest in the system's success. Competitor companies have an interest in its failure.

Q3. B) Documented separately and implemented in application logic

Explanation: Business rules evolve and should not be rigidly enforced at the database level unless necessary.

Q4. C) The terminology used to categorize and describe content

Explanation: A labeling system defines how content is named and categorized to improve usability.

Q5. C) The movement of users through different screens in an application

Explanation: Wireflows combine wireframes and flow diagrams to show how users navigate an interface.

Q6. B) Capture high-level business requirements for data storage

Explanation: The conceptual data model abstracts technical details and focuses on business entities and relationships.

Q7. B) It depends on a strong entity and has a foreign key reference

Explanation: A weak entity cannot exist without its related strong entity.

Q8. A) At least one primary key

Explanation: Every relation must have a primary key to uniquely identify records.

Q9. D) 2NF

Explanation: 2NF removes partial dependencies by ensuring all non-key attributes are fully dependent on the primary key.

Q10. B) The parent (superclass) entity

Explanation: Generalization captures shared attributes in a superclass.

Q11. D) Modifying the execution plan of a query

Explanation: Triggers execute actions but do not influence query execution plans.

Q12. B) Range queries

Explanation: Hash indexes lack order and do not efficiently support range-based searches.

Q13. C) It can perform transactions and modify data

Explanation: Stored procedures can change database state, while user-defined functions typically cannot.

Q14. A) SMTP

Explanation: SMTP (Simple Mail Transfer Protocol) is responsible for sending emails.

Q15. A) "As a [role], I want [feature] so that [benefit]."

Explanation: This format emphasizes the who, what, and why of a requirement.

Q16. C) Assess the impact and present options

Explanation: Stakeholders' input is important, but changes should be evaluated based on feasibility and consequences.

Q17. D) Functional requirements describe how the system behaves, while business rules define constraints

Explanation: Business rules govern how an organization operates, while functional requirements describe system behavior.

Q18. A) Navigation system

Explanation: A navigation system structures links, menus, and paths to help users find content easily.

Q19. A) Color themes

Explanation: Wireframes focus on structure and functionality, avoiding detailed visual design elements like colors.

Q20. C) Primary keys

Explanation: A conceptual model focuses on high-level structure without implementation details like primary keys.

Q21. B) Merging tables to optimize read performance

Explanation: Denormalization sacrifices some normalization to improve query speed, especially for read-heavy systems.

Q22. B) One-to-Many

Explanation: Each student (**SID**) can enroll in multiple courses, but each enrollment entry is tied to one student.

Q23. B) A record references a non-existing primary key in another table

Explanation: Referential integrity ensures foreign keys point to existing records.

Q24. B) Each subclass gets its own table with a foreign key reference to the superclass

Explanation: This preserves relationships between generalized and specialized entities.

Q25. B) They can be difficult to debug and maintain

Explanation: Triggers execute automatically, making debugging and tracing changes harder.

Q26. C) The client sends requests, and the server responds

Explanation: In a client-server architecture, the client requests services, and the server processes and responds.

Q27. B) It provides centralized control and management

Explanation: The client-server model allows centralized management, improving scalability and security.

Q28. C) An HTML page without any scripts

Explanation: Static documents remain unchanged unless manually edited.

Q29. A) They are faster to load and easier to cache

Explanation: Static pages are simpler, load faster, and are easier to distribute through CDNs.

Q30. D) Submitting a form that updates a section of the page without reloading

Explanation: Asynchronous actions (e.g., AJAX) allow background requests without full page reloads.

Q31. C) It provides built-in features to speed up development

Explanation: Frameworks simplify development by offering pre-built functionalities.

Q32. B) They have a steep learning curve and may introduce performance overhead

Explanation: Frameworks add complexity and can slow performance in some cases.

Q33. A) `routes/web.php`

Explanation: Web routes are defined in `routes/web.php`.

Q34. A) Model

Explanation: The model represents database tables and handles queries.

Q35. A) `$request->validate()`

Explanation: Laravel provides a built-in `validate()` method.

Q36. C) `User::all()`;

Explanation: `all()` retrieves all records from a model.

Q37. A) `hasMany()`

Explanation: A model with `hasMany()` can be associated with multiple related records.

Q38. A) A pivot table

Explanation: Pivot tables hold many-to-many relationships between two models.

Q39. A) To define authorization logic for models

Explanation: Policies control user permissions in Laravel applications.

Q40. B) In `app/Providers/AuthServiceProvider.php`

Explanation: Policies must be registered in the AuthServiceProvider.

Q41. C) PUT

Explanation: The PUT method is used to update resources, while POST is for creating new ones.

Q42. B) It includes JavaScript or backend processing

Explanation: Dynamic web documents change content based on user input, database interactions, or scripts.

Q43. B) They can block the user interface

Explanation: Synchronous requests pause execution, leading to a frozen UI until a response is received.

Q44. C) Absolute control over every low-level operation

Explanation: Frameworks abstract many low-level details, which can limit fine-tuned control.

Q45. A) To handle HTTP requests before they reach controllers

Explanation: Middleware filters requests (e.g., authentication, logging, CORS).

Q46. A) `$user->can('update', Post::class);`

Explanation: The `can()` method checks if the authenticated user is authorized for an action.

Q47. B) Increases the load on the server for every interaction

Explanation: In server-based architectures, every request requires processing on the server, leading to higher resource usage.

Q48. B) A web app that dynamically updates content without a full reload

Explanation: SPAs rely on JavaScript to update content dynamically without reloading the page.

Q49. B) Pages load faster because they are prebuilt

Explanation: SSG pre-renders pages at build time, making them faster to serve.

Q50. B) Requires a native mobile app wrapper

Explanation: PWAs run in the browser without requiring native wrappers like React Native.

Q51. A) Defines a secondary content section

Explanation: `<aside>` is typically used for sidebars, related links, or ads.

Q52. B) Screen readers

Explanation: Screen readers convert text to speech for visually impaired users.

Q53. C) Keyboard navigation

Explanation: Keyboard navigation allows users to interact without a mouse, improving accessibility.

Q54. B) Screen magnification software

Explanation: Screen magnifiers enlarge content for users with partial vision.

54 Questions → 20

Correct Answer → 0.370

Wrong Answer → - 0.093