**Web Application Testing Checklist**

**Functional Testing**

**User Interface & Navigation**

* Verify all menus, links, and buttons navigate correctly.
* Verify mandatory fields cannot be left empty.
* Verify field validations (email, phone, password rules, special characters).
* Verify alignment, labels, and UI consistency.
* Verify forms submit only when required inputs are valid.

**Functional Flow**

* Verify login/logout works correctly.
* Verify user registration process.
* Verify search, sort, and filter functions.
* Verify add/edit/delete functionality.
* Verify error/success messages display correctly.
* Verify file upload/download works correctly.

**Data & Processing**

* Verify data is stored correctly in the database.
* Verify data retrieved correctly in reports/queries.
* Verify duplicate entries are restricted.
* Verify calculations (totals, taxes, discounts) are accurate.

**Security (Functional Level)**

* Verify password fields mask characters.
* Verify role-based access control enforced.
* Verify user cannot access restricted pages via URL manipulation.
* Verify session expires after inactivity.

**Integration**

* Verify third-party services (payment gateways, APIs) work correctly.
* Verify emails/SMS/notifications/OTP sent as expected.
* Verify system handles API failures gracefully.

**Non-Functional Testing**

**Performance**

* Verify page load time within acceptable limits (<3s).
* Verify application handles concurrent users (load testing).
* Verify response time acceptable under normal and peak load.

**Security**

* Verify data encryption in transit and storage.
* Verify protection against SQL Injection, XSS, CSRF.
* Verify account lockout after repeated failed logins.
* Verify session and cookie management is secure.

**Usability**

* Verify layout responsive across devices.
* Verify navigation logical and consistent.
* Verify error messages understandable.
* Verify accessibility standards (WCAG/ADA).

**Compatibility**

* Verify works on major browsers (Chrome, Firefox, Safari, Edge).
* Verify works on different OS (Windows/macOS).
* Verify works with different screen resolutions.

**Reliability & Recovery**

* Verify app recovers gracefully after crash/restart.
* Verify handles network loss and resumes properly.

**Mobile Application Testing Checklist**

**Functional Testing**

**App Installation & Launch**

* Verify app installs/uninstalls correctly.
* Verify app launches successfully.
* Verify app responds properly after being minimized.

**User Interface & Navigation**

* Verify mandatory fields cannot be skipped.
* Verify field validations (email, phone, password rules, special characters).
* Verify navigation between screens works correctly.
* Verify orientation changes (portrait/landscape) handled properly.

**Functional Flow**

* Verify login/logout works correctly.
* Verify user registration process.
* Verify search, sort, filter functionality.
* Verify add/edit/delete operations.
* Verify error/success messages display correctly.
* Verify file upload/download works (if supported).

**Offline / Network**

* Verify app behavior tested without network.
* Verify data syncs correctly after network restores.
* Verify appropriate error messages shown when offline.

**Security (Functional Level)**

* Verify password fields mask characters.
* Verify role-based access enforced.
* Verify session expires after inactivity.
* Verify user cannot access restricted screens without login.

**Integration**

* Verify API calls, push notifications, and third-party services work correctly.
* Verify email/SMS notifications sent properly.

**Non-Functional Testing**

**Performance**

* Verify app loads quickly.
* Verify handles multiple users or background processes without crash.
* Verify stress testing for heavy data operations.

**Security**

* Verify data encryption (in transit and storage).
* Verify protection against common mobile threats (data leakage, insecure storage).
* Verify session timeout and secure storage of credentials.

**Usability**

* Verify app intuitive and easy to use.
* Verify navigation logical and consistent.
* Verify error messages understandable.

**Compatibility**

* Verify works across Android and iOS versions.
* Verify works on multiple screen sizes and resolutions.
* Verify works on different device brands.

**Reliability & Recovery**

* Verify app recovers gracefully after crash.
* Verify handles network interruptions gracefully.
* Verify offline functionality works as expected.