

SYLLABUS FOR THE WRITTEN EXAM TOWARDS FULL STACK DEVELOPER POSITION PUBLISHED VIDE ADVERTISEMENT NO.2024/01 & 2024/02 DATED 08/02/2024

Front-End Development

HTML (HyperText Markup Language)

- Basic structure
- Semantic elements
- Forms and input elements

CSS (Cascading Style Sheets)

- Selectors and specificity
- Box model
- Flexbox and Grid layout
- Responsive design

JavaScript

- Variables, data types, operators
- Control structures (loops, conditionals)
- Functions and scope
- DOM manipulation
- Asynchronous JavaScript (callbacks, promises, async/await)

Front-End Frameworks

- Introduction to frameworks like React.js, Angular, or Vue.js
- Components, props, state management

Version Control with Git

- Basic commands
- Branching and merging
- GitHub or GitLab for collaboration

Back-End Development

Server-Side Programming

- Introduction to server-side languages (Node.js, Python, Java, etc.)
- RESTful APIs
- Handling HTTP requests

Databases

- Relational databases (SQL)
 - Structured Query Language (SQL)
 - MySQL, PostgreSQL, SQLite
- NoSQL databases (optional)
 - MongoDB, Firebase

Server-Side Frameworks

- Express.js (Node.js), Django (Python), Spring Boot (Java), etc.
- Routing, middleware, controllers

Authentication and Authorization

- User authentication (sessions, JWT)
- Role-based access control (RBAC)

Deployment and DevOps

- Cloud platforms (AWS, Azure, Google Cloud)
- Containerization (Docker)
- Continuous Integration/Continuous Deployment (CI/CD)