A set of 50 multiple-choice questions (MCQs) with answers covering intermediate-level concepts of the MERN (MongoDB, Express.js, React, Node.js) stack:

### MongoDB

1. \*\*What is the default port for MongoDB?\*\*

- a) 27017

- b) 3306

- c) 5432

- d) 8080

- \*\*Answer: a) 27017\*\*

2. \*\*Which command is used to start the MongoDB server?\*\*

- a) mongo

- b) mongod

- c) mongos

- d) mongo-server

- \*\*Answer: b) mongod\*\*

3. \*\*In MongoDB, which of the following is used to insert a document into a collection?\*\*

- a) insertDocument()

- b) insertOne()

- c) insert()

- d) addDocument()

- \*\*Answer: b) insertOne()\*\*

4. \*\*Which method is used to find all documents in a collection?\*\*

- a) findAll()

- b) find()

- c) getAll()

- d) retrieveAll()

- \*\*Answer: b) find()\*\*

5. \*\*What is the purpose of the `$set` operator in MongoDB?\*\*

- a) To add a new field

- b) To delete a field

- c) To update the value of an existing field

- d) To rename a field

- \*\*Answer: c) To update the value of an existing field\*\*

### Express.js

6. \*\*What is Express.js primarily used for?\*\*

- a) Frontend development

- b) Backend web application framework

- c) Database management

- d) Styling web pages

- \*\*Answer: b) Backend web application framework\*\*

7. \*\*Which method is used to create a new Express application?\*\*

- a) express.init()

- b) express.start()

- c) express()

- d) express.createApp()

- \*\*Answer: c) express()\*\*

8. \*\*How do you define a route in Express.js?\*\*

- a) app.route('path', callback)

- b) app.use('path', callback)

- c) app.get('path', callback)

- d) app.define('path', callback)

- \*\*Answer: c) app.get('path', callback)\*\*

9. \*\*Which middleware is used to parse JSON payloads in Express.js?\*\*

- a) bodyParser.json()

- b) express.json()

- c) jsonParser()

- d) app.json()

- \*\*Answer: b) express.json()\*\*

10. \*\*How do you handle errors in Express.js?\*\*

- a) app.error(callback)

- b) app.use(errorHandler)

- c) app.use((err, req, res, next) => { ... })

- d) app.catch(err => { ... })

- \*\*Answer: c) app.use((err, req, res, next) => { ... })\*\*

### React

11. \*\*What is the purpose of React?\*\*

- a) To manage server-side data

- b) To create user interfaces

- c) To manage databases

- d) To perform SEO

- \*\*Answer: b) To create user interfaces\*\*

12. \*\*Which method is used to create a component in React?\*\*

- a) React.createElement()

- b) React.createComponent()

- c) React.component()

- d) React.newComponent()

- \*\*Answer: a) React.createElement()\*\*

13. \*\*What is a state in React?\*\*

- a) A method to fetch data

- b) A built-in component

- c) A way to store component data

- d) A lifecycle method

- \*\*Answer: c) A way to store component data\*\*

14. \*\*Which hook is used to manage side effects in a functional component?\*\*

- a) useState()

- b) useEffect()

- c) useContext()

- d) useReducer()

- \*\*Answer: b) useEffect()\*\*

15. \*\*What is the purpose of the `key` prop in React?\*\*

- a) To style components

- b) To uniquely identify elements

- c) To handle events

- d) To manage state

- \*\*Answer: b) To uniquely identify elements\*\*

### Node.js

16. \*\*What is Node.js used for?\*\*

- a) Frontend development

- b) Backend development

- c) Styling web pages

- d) Database management

- \*\*Answer: b) Backend development\*\*

17. \*\*Which of the following is a core module in Node.js?\*\*

- a) http

- b) express

- c) react

- d) mongoose

- \*\*Answer: a) http\*\*

18. \*\*Which command is used to initialize a new Node.js project?\*\*

- a) npm start

- b) npm init

- c) npm new

- d) npm create

- \*\*Answer: b) npm init\*\*

19. \*\*How do you install a package in Node.js?\*\*

- a) node install packageName

- b) npm get packageName

- c) npm install packageName

- d) node get packageName

- \*\*Answer: c) npm install packageName\*\*

20. \*\*What does `require` do in Node.js?\*\*

- a) Installs a module

- b) Imports a module

- c) Starts the server

- d) Executes a script

- \*\*Answer: b) Imports a module\*\*

### General MERN Stack

21. \*\*Which database is typically used in a MERN stack application?\*\*

- a) MySQL

- b) PostgreSQL

- c) MongoDB

- d) SQLite

- \*\*Answer: c) MongoDB\*\*

22. \*\*In a MERN stack application, which component handles the backend logic?\*\*

- a) React

- b) Express.js

- c) MongoDB

- d) HTML

- \*\*Answer: b) Express.js\*\*

23. \*\*What does the acronym MERN stand for?\*\*

- a) MongoDB, Express, React, Node.js

- b) MySQL, Express, React, Node.js

- c) MongoDB, Express, Redux, Node.js

- d) MongoDB, Express, React, Nginx

- \*\*Answer: a) MongoDB, Express, React, Node.js\*\*

24. \*\*Which part of the MERN stack is used for building user interfaces?\*\*

- a) MongoDB

- b) Express.js

- c) React

- d) Node.js

- \*\*Answer: c) React\*\*

25. \*\*How do you connect a Node.js application to a MongoDB database?\*\*

- a) Using the `mongoose` library

- b) Using the `express` library

- c) Using the `http` module

- d) Using the `react` library

- \*\*Answer: a) Using the `mongoose` library\*\*

### Advanced MongoDB

26. \*\*What is an aggregation in MongoDB?\*\*

- a) A method to insert multiple documents

- b) A method to update multiple documents

- c) A method to process data and return computed results

- d) A method to delete multiple documents

- \*\*Answer: c) A method to process data and return computed results\*\*

27. \*\*Which of the following is a correct syntax for creating an index in MongoDB?\*\*

- a) db.collection.createIndex({ field: 1 })

- b) db.collection.create\_index({ field: 1 })

- c) db.collection.addIndex({ field: 1 })

- d) db.collection.newIndex({ field: 1 })

- \*\*Answer: a) db.collection.createIndex({ field: 1 })\*\*

28. \*\*What does the `$lookup` operator do in MongoDB?\*\*

- a) Joins data from another collection

- b) Updates multiple documents

- c) Deletes multiple documents

- d) Creates an index

- \*\*Answer: a) Joins data from another collection\*\*

29. \*\*How do you update multiple documents in MongoDB?\*\*

- a) updateMany()

- b) updateAll()

- c) updateMultiple()

- d) updateDocs()

- \*\*Answer: a) updateMany()\*\*

30. \*\*Which data type is used to store dates in MongoDB?\*\*

- a) String

- b) Date

- c) Timestamp

- d) ISODate

- \*\*Answer: d) ISODate\*\*

### Advanced Express.js

31. \*\*What is middleware in Express.js?\*\*

- a) Functions that execute after the request is sent

- b) Functions that execute during the lifecycle of a request

- c) Functions that execute after the response is received

- d) Functions that handle database queries

- \*\*Answer: b) Functions that execute during the lifecycle of a request\*\*

32. \*\*How do you serve static files in Express.js?\*\*

- a) app.use(express.static('public'))

- b) app.static('public')

- c) app.serve('public')

- d) app.serveStatic('public')

- \*\*Answer: a) app.use(express.static('public'))\*\*

33. \*\*Which method is used to handle POST requests in Express.js?\*\*

- a) app.get()

- b) app.put()

- c) app.post()

- d) app.delete()

- \*\*Answer: c) app.post()\*\*

34. \*\*How do you create a route parameter in Express.js?\*\*

- a) app.get('/user/:id', callback)

- b) app.route('/user/:id', callback)

- c) app.param('/user/:id', callback)

- d) app.define('/user/:id', callback)

- \*\*Answer: a) app.get('/user/:id', callback)\*\*

35. \*\*What is the purpose of `next` in Express.js middleware?\*\*

- a) To terminate the request-response cycle

- b) To pass control to the next middleware function

- c) To send a response

- d) To catch errors

- \*\*Answer: b) To pass control to the next middleware function\*\*

### Advanced React

36. \*\*What is a higher-order component (HOC) in React?\*\*

- a) A component that returns another component

- b) A function that takes a component and returns a new component

- c) A class that extends another class

- d) A method to manage state

- \*\*Answer: b) A function that takes a component and returns a new component\*\*

37. \*\*What is the purpose of React Router?\*\*

- a) To manage state

- b) To handle API requests

- c) To manage routes in a React application

- d) To style components

- \*\*Answer: c) To manage routes in a React application\*\*

38. \*\*How do you pass data between components in React?\*\*

- a) Using props

- b) Using state

- c) Using functions

- d) Using events

- \*\*Answer: a) Using props\*\*

39. \*\*What is a React Fragment?\*\*

- a) A method to fetch data

- b) A way to return multiple elements without adding extra nodes to the DOM

- c) A lifecycle method

- d) A component that handles errors

- \*\*Answer: b) A way to return multiple elements without adding extra nodes to the DOM\*\*

40. \*\*Which hook would you use to manage a complex state logic in React?\*\*

- a) useState()

- b) useEffect()

- c) useReducer()

- d) useMemo()

- \*\*Answer: c) useReducer()\*\*

### Advanced Node.js

41. \*\*Which module is used to create a web server in Node.js?\*\*

- a) express

- b) http

- c) fs

- d) net

- \*\*Answer: b) http\*\*

42. \*\*How do you read a file asynchronously in Node.js?\*\*

- a) fs.readFileSync()

- b) fs.readFileAsync()

- c) fs.readFile()

- d) fs.open()

- \*\*Answer: c) fs.readFile()\*\*

43. \*\*What does the `path` module do in Node.js?\*\*

- a) Handles HTTP requests

- b) Provides utilities for working with file and directory paths

- c) Manages routes

- d) Connects to databases

- \*\*Answer: b) Provides utilities for working with file and directory paths\*\*

44. \*\*Which method is used to create a new directory in Node.js?\*\*

- a) fs.mkdirSync()

- b) fs.createDir()

- c) fs.newDir()

- d) fs.mkdir()

- \*\*Answer: d) fs.mkdir()\*\*

45. \*\*How do you handle promises in Node.js?\*\*

- a) Using callbacks

- b) Using async/await

- c) Using event emitters

- d) Using streams

- \*\*Answer: b) Using async/await\*\*

### Miscellaneous

46. \*\*Which of the following is used to manage environment variables in a Node.js project?\*\*

- a) dotenv

- b) config

- c) env-manager

- d) varConfig

- \*\*Answer: a) dotenv\*\*

47. \*\*What is JSX in React?\*\*

- a) A syntax extension for JavaScript

- b) A type of JavaScript function

- c) A React hook

- d) A method to fetch data

- \*\*Answer: a) A syntax extension for JavaScript\*\*

48. \*\*How do you install React in a new project?\*\*

- a) npm install react

- b) npm new react

- c) npm create react-app

- d) npx create-react-app

- \*\*Answer: d) npx create-react-app\*\*

49. \*\*What is the use of the `componentDidMount` lifecycle method in React?\*\*

- a) To update the state

- b) To perform side effects after the component mounts

- c) To fetch data

- d) To handle user input

- \*\*Answer: b) To perform side effects after the component mounts\*\*

50. \*\*Which method is used to close a MongoDB connection?\*\*

- a) db.close()

- b) mongo.close()

- c) mongoose.disconnect()

- d) mongoose.close()

- \*\*Answer: c) mongoose.disconnect()\*\*

These questions should help reinforce understanding of the key concepts and features of the MERN stack for intermediate learners.