

## Module-14) Capstone Project Redux – Theory Questions & Answers

### **Q1. What is Redux?**

Redux is a state management library used to manage application data in a centralized and predictable way.

### **Q2. Why is Redux needed? (Complexity of Managing State)**

In large applications, managing state using props becomes difficult. Redux helps by storing all data in one central store.

### **Q3. Explain Redux Flow.**

Redux follows a one-way data flow: UI → Action → Reducer → Store → UI.

### **Q4. What is a Store in Redux?**

The store is a central place that holds the complete state of the application.

### **Q5. What is a Reducer?**

A reducer is a pure function that takes the current state and an action and returns a new updated state.

### **Q6. What are Actions in Redux?**

Actions are JavaScript objects that describe what type of change should occur in the state.

### **Q7. What is Dispatching an Action?**

Dispatching means sending an action from the UI to the Redux store to update the state.

### **Q8. How is data passed and retrieved in Redux?**

Data is passed using actions and retrieved from the store using `useSelector`.

### **Q9. What is `combineReducers`?**

`combineReducers` is used to combine multiple reducers into a single root reducer.

### **Q10. What is Middleware in Redux?**

Middleware allows handling extra tasks like logging and asynchronous API calls.

### **Q11. What is Redux DevTools?**

Redux DevTools is a browser extension used to inspect actions and state changes in Redux.