

Day 1 (JS)

Q1 Data types - primitive - String / var / let / const / Number
 BigInt, Boolean, Undefined, Null
 Symbol, type of

Non primitive types - Object, array

Q2 Hoisting - Hoisting is the default behaviour of javascript where all the variable & function declarations are moved on top.
 The scope can be both local & global.

Q3 hoisted variable = 3
`console.log(hoistedVariable);`
`var hoistedVariable;`
`Output - 3`

→ To avoid hoisting, you can run js in strict mode by using "use strict";

hoisted function();
`function hoistedFunction() {`
 `console.log("Hello World");`
`}`
`Output - Hello world`

Q3 Debugger - The debugger for the browser must be activated in order to debug the code.
 The remaining section of the code should stop execution before moving to the next line while debugging.

Q4 Diff. b/w == & === → Both are comparison operator. "==" is used to compare values whereas "===" is used to compare both values & types.

Q5 -
`var`
 since beginning
 function scope
 Reassignable
 Yes, Redeclarable
 (in same scope)
 Hoisted - Yes
 (Initialize to undefined)

let / const
 introduced in 2015
 block scope
 let - Reassignable while const no
 Not Redeclarable
 Hoisted - Yes (Not initialized)

Day 1 (React)

Q1 React is a front-end and open-source JS library which is useful in developing user-interface specifically for applications with a single page. useful in building complex and reusable UI

Imp. features -

- server-side rendering
- use virtual dom rather than real DOM
(Data object model)

→ Reusable UI

Q2 limitation - → React is not a full blown framework as it is only a library.

→ Coding might become complex as it will make use of inline templating and JSX.

Day 1 (CN)

Q1 IP - An IP address is a 32 bit dynamic address of a node in the network. An IPv4 address has 4 octets of 8-bit each with each number with a value up to 255

Classes

A	0.0.0.0	127.255.255.255	Used for large network
B	128.0.0.0	191.255.255.255	Medium netw
C	192.0.0.0	223.255.255.255	Local Netw
D	224.0.0.0	239.255.255.255	Multicasting
E	240.0.0.0	255.255.255.255	R&D

Q2 Private Address - for each class there are specific IPs that are reserved specifically for private use only. These IP address can not be used for devices on the Internet as they are non routable.

Special Address - Network testing addresses

127.0.0.1 — 127.255.255.255

Day 1 (OS)

Q1) Main purpose - The main purpose of an OS is to execute user programs and make it easier for users to understand and interact with computers as well as run applications.

- Types -
- Batched OS - (e.g. Payroll Systems, Transaction process)
 - Multi-programmed OS - (Windows OS, UNIX OS)
 - Timesharing OS (Multics)
 - Distributed OS (LOCUS)
 - Real-time OS (PSOS, VRTX)

Q2) OS is the most essential and vital part of a computer without which it is considered useless because it enables interface or acts like a link for interaction between computer software that is installed on OS & users.

Day 1 (DBMS)

Q1) DBMS stands for Database Management System is a set of applications or programs that enables users to create & maintain a database.
e.g. XML, File system

- RDBMS - stands of Relational DBMS introduced in 1970s, stores data in form of tables compared to DBMS which store data as files
e.g. MySQL, Oracle DB

Q2) Database - is an organized consistent and logical collection of data that can easily be updated, accessed & managed.