

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 clg(hoisted variable); var hoisted variable o/p - 3	hoisted function(); function hoisted function() { clg("Hello world"); } o/p - Hello world
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→ To avoid hoisting, you can run js in strict mode by using "use strict";

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- <u>var</u> since beginning function scope Reassignable Yes, Redeclarable (in same scope) Hoisted - Yes (initialized to undef)	<u>let/const</u> introduced in 2015 block scope let - Reassignable while const no Not Redeclarable Hoisted - Yes (Not initialized)
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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. feature-

→ 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 network
C	192.0.0.0	223.255.255.255	Local Network
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 addresses 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 - (eg. Payroll system, Transaction process)
 - Multi-programmed OS - (Windows OS, UNIX OS)
 - Timesharing OS (Multics)
 - Distributed OS (LOCUS)
 - Real-Time OS (RTOS, 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.
eg. XML, File system

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

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