**C Programming**

Compilation steps of a C program   
Volatile keyword  
extern  
register  
static  
Storage class  
malloc calloc relloc free  
Memory layout of a C program  
Structure padding  
Memory leak  
memset memcpy  
typedef  
union  
enum  
void pointer  
Const qualifier  
Little endian vs big endian  
Function pointer  
Preprocessors  
Type casting  
Bit fields  
Linked list vs Array  
File operations  
Pointer arithmatic  
Array of structures  
Static & shared Libraries

**Linux Kernel**

Process  
System Call  
Kernel Synchronization  
Interrupt  
Drivers Basics  
Character Driver  
USB Driver  
Display Drivers  
I2C SPI  
GDB KGDB   
Memory Management  
Kernel Debugging using kprobe jprobe

**Generic Concepts**

Linux Subsystem

Linux booting process

Linux boot optimization

U-boot

Kernel building

Workqueue vs Softirq vs Tasklet

Process descriptor

System call flow

USB specification

**Bit operations**

Basic program

Number of set bits

Power of 2 or not

Swap even odd bits / nibble / byte

Position of set bit in 2n

Position of first set bit in any number

Reset first set bit in any number

A->B

Set a bit

Reset a bit

Toggle a bit

**Linked list**

Basic program

Move last node to first

Reverse a linked list

Detect & remove loop

Delete a node

Print nth node from starting & last

Swap nth node from starting & last

Palindrome a linked list

Sort a linked list

Sort linked list containing 0’s 1’s & 2’s

Identical linked list