

C:

1. Compilation stages.
2. Static and Dynamic linking.
3. Swapping techniques. Also swapping bits/bytes.
4. Bit operations like test, set, clear and compliment bits.
5. Explain storage classes with example?
6. Explain different types of memory segments involved during programme execution.
7. What is the difference b/w memcpy and strncpy at least two differences?
8. What is the use of void pointers explain with example?
9. How to allocate the memory dynamically for 1D, 2D and 3D arrays explain with example.
10. What are the function pointers.
11. What is callback function. Explain one real time example.
12. How to find the system endian.
13. What is structure padding.
14. What is the volatile variable.
15. Can you write user define srand?
16. Explain floating point algorithm? Eg: float f=33.5; double g=33.5; both are same? how about 33.7?
17. Byte Ordering.
18. Anagram.
19. What is the difference b/w malloc and calloc. at least 2. which is better to use?
20. Memory leak and Dangling pointer.
21. Bit fields.
22. Difference b/w Structure and union. Realtime example of a union.
23. Enum, Typedef, Macro.
24. File Operations.
25. Explain command line arguments. Define few applications?
26. Explain variable number of arguments. Define few applications?
27. Write simple Make file.

Data Structures:

1. What is sll? write a programme for add (ascending order), delete (first, given, last, all), sort, reverse, print the nodes.
2. What is dll? write a programme for add (ascending order), delete (first, given, last, all), sort, reverse, print the nodes.
3. Find the middle, nth, n-1, n-2 node etc.
4. Find the loop in a sll?
5. What is Stack, Queue? Explain with example.
6. What is pre, in, post order? Explain with example?
7. What are the different trees? explain difference b/w them.

Linux Internals:

1. Explain Kernel and User space
2. What is the difference b/w library function and system call.
3. What are the different type of IPC mechanisms
4. Dead Lock.
5. How to set priority of a thread.
6. What is CPU affinity.
7. What are the contents of PCB of a process.
8. Explain context switching.
9. How to communicate with Kernel.
10. How to check the memory utilization of a each process.
11. Zombie and Orphan process.

Networking:

1. Talk about the OSI model.
2. Explain how ping works.
3. Difference b/w connection oriented and connection less

Protocols?

GDB debugging?

Reasons for crashing?

Coding Guidelines?

Traceroute?

Linked list vs Trees (Performance) Big O notation

Interview

- 1)What is IPC Mechanism?
- 2)What is structure padding?
- 3)What is structure?
- 4)What is union?
- 5)Have you ever used debugging tools? Explain?
- 6)Tell me different types of pointers void, null dangling?
- 7)Scope of different types variables?
- 8)What is static variable?
- 9)what is singled LinkedList?
- 10)what is double LinkedList?
- 11)What is size of int 16bit complier and 32 bit compiler?
- 12)How can you allocate memory dynamically? Types?
- 13)Syntax of malloc()?
- 14)program for string length without using strlen()?
- 15)program for reverse a string?
- 16)without using semicolon can you execute statement?
- 17)infinite loop in do while or for loop?
- 18)syntax of double linked list?
- 19)What is Memory leak and how to avoid it?
- 20)Explain const pointer?
- 21)What is process and thread?
- 22)what is context switching?
- 23)what are scheduling mechanisms?
- 24)count the number of nodes double linked list?
- 25)find middle node of the single linked list?
- 26)Explain CAN protocol?
- 27)Explain about projects?