**C Questions**

1. Explain the difference between an object file and an executable

2. How can you create your own static library ?

3. Distinguish between a Library Function and a System Call

4. Explain a scenario where you will need the help of realloc

5. Explain what you understand by a volatile variable

6. Explain the purpose of the errno global variable

7. Give a scenario where a union will be useful

8. What is structure padding ?

9. Explain the difference between malloc and new

10. Compare Arrays Vs Linked Lists

11. What are the 3 main functions of the C pre-processor ?

12. What are the main causes of Segmentation fault ?

13. What happens behind the scenes when strtok function is executed ?

14. Explain the concept behind a Dynamically Linked Library ?

15. What is a linker error ? How will you simulate a linker error ?

16. Explain the memory layout of a C process

17. Explain the difference between a Structure & Union

18. Explain with an example the usage of an enumerated variable

19. Explain what happens behind the scenes when printf is executed

20. How exceptions are handled in C ?

21. Explain the difference between the following :

a. static variable Vs local variable when it is defined inside a function

b. static variable Vs global variable when it is defined outside a function

22. Explain the difference between a structure and union with an example

23. Can you provide some optimizations done by the C compiler

24. Explain the significance of a register variable

25. Distinguish between a Compiler & Interpreter

26. What is the difference between a Procedure Oriented language and Object Oriented

language ?

27. How would return multiple values from a C function ? How would you return

an array of values from a C function ?

28. Explain the difference between Passing by Value & Passing by Reference

29. How would you create a 2D array dynamically in C ?

30. Explain the difference between scope and visibility