**I-II-R18-CSE-PROBLEM SOLVING WITH PROGRAMMING-QB**

1. a) what is pointer explain it with example.

b) What is pointer arithmetic? Explain with example.

2. Explain about structures in detail with a program.

3. Explain about storage class in detail with examples.

4. What is recursion? Write a program to generate Fibonacci series of given number using recursion.

5. Explain about malloc () and calloc () function with examples.

6. Explain about text files and write a program to copy the content of one fIle to another file.

7. Explain about bit fields in detail with a program.

8. Explain about pre-Processor Directives in detail with example.

9. Explain about a) NULL pointer b)) Pointer to Pointer c) pointer

10. Explain the following. i) Array of pointers ii) void pointer with programs.

11. Write about functions in detail with a program.

12. Explain a) Call by Value b) Call by address in detail.

13. Explain a) malloc b) calloc c) realloc with programs.

14. Explain the way of defining, opening and closing a file. Also explain the different modes of operation with example.

15. Explain about command line arguments with example.

16. Explain about a) register variable b) bit wise operators in detail with a proper programs.

17. a) Write a ‘C’ program using pointers to determine the length of a character String.

b) Write short notes on pointers.

18. Define structures and Write a C program using structure to create a library catalogue with the following fields: Book number, Author’s name, Title of book, Year of publication, Publisher’s name, Price.

19. Explain a) function declaration b) function definition c) function body d) Function parameters.

20. a) Write about formal parameters and actual parameters in detail with a C program.

b) Write about passing array to function with a C program.

21. a) Write a C program to read a text file and to count i) Number of characters.

ii) Number of words iii) Number of sentences and write in an output file.

b) Explain about sequential file.

22. Describe various types of files in C in detail with example for each.

23. Explain about different types of data types available in C++.

24. Explain following with example: #define, #undef, #if, #endif, #elif, #ifdef, #ifndef, #error.

25. Explain about a) nested structures b) Array of structures with programs.

26. Explain about union and write a program using following details std\_rno, std\_name, maths\_marks, phy\_marks, Chem\_marks, then calculate total and average.

27. a) write a program to generate prime numbers using recursion.

b) What is global variable explain with a program..

28. a) Write a program to find biggest of three numbers using functions with return type.

b) Write a program to interchange values using user defined function.

29. a) Write a program to copy the contents of one file into another file.

b) Write a program to count the number of characters in a file.

30. Explain about error handling in C with a program.

31. Explain the following with program.a) exp() b) pow() c) sqrt() d)islower() e) isupper().

32. Explain file inclusion and macro substitution, conditional inclusion in detail with examples.