

UNIT -1

1. Computing Environment Computer languages - [2m]
2. Different between compiler & interpreter - [2m]
3. Creating & running program & program Development - [5m]
4. Data types used in C language - [5m]
5. Program structure Identifiers, Precedence & Associating with expressions- [10m/5m]
6. variables & constants - [2m]
7. Operators- [10m/5m]
8. Conditional operator [2m]
9. Algorithm & Flow chart-[3M/5M]
10. Type casting/type conversion [2m/5M]
11. Selection/Decision making statement [10M/5m]-
12. switch with example-[10m]
13. Different between if & switch [3m]
14. Repetition statement (loops) [10/5m]
15. Different-break, continue & goto [5m/2m/3m]
16. Flow chart with symbol for Root of quadratic equation [5m]
17. Factorial using while [5m]
18. Convert 1,2,3,4,5 Into whole number 12345 [5m]
19. Type qualifier [3m].
20. Precaution taken while constructing statement in C language. [2M]
21. What is Programming Language? Briefly explain the classification of Programming Language.

UNIT -2

1. What is an array? Types & Different ways to initialized the array[3M/5M]
2. What is the advantage of using arrays ? Give syntax for declaration , accessing and printing one - dimensional array ?[5M/10M]
3. A)Write a C program to do Matrix Multiplications.
B) Write in detail about one dimensional and multidimensional arrays. Also write about how initial values can be specified for each type of array?[10M]

4. The annual examination is conducted for 50 students for three subjects. Write a program to read the data and determine the following: [5M/7M]
 - i. Total marks obtained by each student.
 - ii. The highest marks in each subject and the Roll No. of the student who secured it.
 - iii. The student who obtained the highest total marks.
5. How string are declared & initialized in c ? [2M/4M]
6. Define array of string [3M]
7. Explain string Manipulation function & string library function are string handling function [10M/5M]
8. Explain strstr-[2M]
9. Differentiate strcpy & strcmp[3M]
10. what is the purpose of gets & puts function. [3M]
11. What is null character? and differentiate between NULL, '\0' & 0 ? [3M]
12. Explain about string to data conversion? [3M]
13. Explain string I/O function .[3M]
14. Differentiate between getchar() & scanf() for reading string .[3M]
15. Explain pointer arithmetic operators that are permitted on pointer with a sample c program [10M/5M/3M]
16. Differentiate between pointer & variable. [2M]
17. How pointer declared, initialized? what is pointer to another pointer [5M]
18. Discuss various application of pointer [5M]
19. What is mean by array of pointer? when it will be used [3M]
20. Write & explain a program for pointer to multidimensional array [5M]
21. Write a program to find length of the string [5M]
22. Explain about declaration ,initialization & accessing structures and also discuss about complex structure [10M]
23. Give the difference between structure & union [2M/5M]
24. What is self referential structure with program [3M /5M]
25. With the help of an example explain union of structures [5M]
26. Define structure [2M]
27. Write about enumerated data type[5M]
28. Define structure ,How can we access the members of a structure using pointer.explain it with an example -7M-JUNE-15

29. Write a C program to reverse the string passed as an argument that cannot be altered.
[7M/5M]
30. Write a program using function to find the length of a string passed as an argument [5M]
31. Write a program to find position of substring into main string if substring is not present then program display –[5M]
32. Write C function void insert (char a[],char c, int *n ,int i)that insert character c at index I in the array by shifting all elements above that position by 1 & incrementing n.[10M]
33. Find the numbers of words, character &lines in the given text. [5M]
34. Convert the string passed as an argument to its uppercase equivalent [5M]
35. Write a program which will read a string &rewrite it in the alphabetical order [example – the word STRING should be written as GINRST] [5M]
36. Write a program to replace substring with a new string [5M]
37. Write a function to delete n character from a given position in a given string [5M]
38. Explain the following
 - 1) Nested structure
 - 2)array of structure
 - 3)union
 - 4)pointer of structures
 - 5)self referential structure
 - 6)typedef
 - 7)enumerated types

UNIT -3

1. What is the use of rewind ()?
2. What is the impact of fclose () on buffered data.
3. Explain the different types of files are used in C
4. b. Write a C program to print the records in reverse order. The file must be opened in binary mode.
5. Write a program to append a binary file at the end of another. b. Explain the function calls of fseek ().
6. Compare fread and fscanf functions.
7. What is meant by opening a data file? How is this accomplished?

8. Write a program to copy contents of one file to another using file names passed as the command line arguments.
9. What are the modes in which files can be opened?
10. b. Write a program to store information (id, name, address, marks) into a file and print the information from the file.
11. Write syntax of opening a file. Give example.
12. List the advantages of using files.
13. Discuss in detail about the file positioning functions.
 - a. Write a C program to count number of words, white spaces and tab spaces present in a file.
14. Explain the file input and output function with examples Programs.
 - a. Distinguish r, r+, and w and w+ modes.
15. Explain about fseek ().
16. Discuss the different modes available for opening a file.
17. Write a C program to count the number of characters in a file.
 - b. Explain various standard library functions for handling files.
18. Write a C program to create a file contains a series of integer, read them and write all odd numbers in odd file and also write all even numbers to a file called even.
19. What is meant of text file?
20. Discuss about rewind () function?
21. What is meant of state of a file? Write a C program to copy the contents of one text file to another text file.
22. What is meant by binary file? Discuss about file positioning file functions.
23. Explain about the preprocessor commands.

UNIT -4

1. Define Function.
2. Write about user defined functions.
3. What is recursion.
4. What are type qualifiers.
5. Define Global and local variables.
6. What are local and global variable?
7. What do you mean by formal arguments and the actual arguments?

8. What are parameter passing Technique?
9. Define array and how we can access elements of an array?
10. What is the purpose of the return statement?
11. Explain function prototyping.
12. Distinguish between run time and logical errors.
13. What is a Function? Explain different types of functions in C with example programs?
14. What is a type Qualifier? Explain about types of type qualifiers?
15. What is recursion? Explain with example and give limitations of recursion?
16. Explain about inter function communication (parameter passing mechanism) ?
17. a) What is recursion? Write a C program to find GCD of two numbers.
b) Differentiate call by value and call by reference with an example.
18. What are type qualifiers? Write recursive and iterative approaches programs to find factorial of a given number.
19. i. Give some important points while using return statement.
ii. Write short notes on scope of a variable.
20. What is the advantage of using functions? Write a 'C' program to explain about built in functions with an example.
21. Write short notes on call by reference.
22. What are the advantages and disadvantages of recursion?
ii. Write a C program to find the factors of a given integer using a function.
23. Explain the different ways of passing structure as arguments in functions.

UNIT -5

1. What is searching?
2. What is sorting?
3. Explain working of binary search?
4. Explain working of linear search?
5. Explain working of bubble sort?
6. Explain working of selection sort?
7. Explain the properties of an algorithm?
8. What is time complexity? explain with example
9. What is searching? Explain linear and binary search techniques?
10. What is sorting? Explain bubble, insertion, selection sorts with example?
11. What are searching operations on linear lists?

12. What do you mean by sorting? Mention the different types of sorting, give some examples and explain any one in detail.
13. Compare the advantage and disadvantage of bubble, insertion and selection sort.
14. Trace through the steps by hand to sort the following list in Bubble sort.
28 7 39 3 63 13 61 17 50 21 10.
15. Sort the following numbers using selection sort and give the required steps.
96,31,27,42,34,76,61,10,4 11.
16. Write a C program for implementing the binary search and search for a given number in the list.
17. Explain linear and binary search methods.
18. Write an algorithm or C program for insertion sort.
19. Stack implementation using array
20. Queue implementation using array
21. Program for merge sort
22. Program for quick sort