

**SARDAR PATEL UNIVERSITY**  
**FYBCA (Semester – II)**  
**Adv. C - Practical Definition List**

**Part-1 Pointers**

1. WAP to input and print the value and address of an integer variable using pointer.
2. **WAP to input two numbers. Perform addition operation on them and print final answer using pointers.**
3. WAP to input two numbers. Find out maximum number from them using pointer. Display appropriate message.
4. WAP using pointers to exchange the values stored in two locations in memory.
5. **WAP using pointer to reverse the given no.**
6. Write a program using pointers to read an array of n elements and print all the elements of array.
7. **Write a program using pointers to read an array of n elements and print all the elements of array in reverse order.**
8. Write a program using pointers to read an array of n elements and print all the elements of array. Also find and print sum of all elements.
9. **Write a program using pointers to read an array of n elements and print all the elements of array. Also find and print sum of odd and even elements of array.**
10. Write a user defined function using pointers to find addition and subtraction of two numbers.
11. Write a user defined function using pointers to swap values of two variables.
12. **Write a user defined function using pointers to find simple interest.**

**Part-2 Structures & Unions**

13. **Write a C program to read and write library data like title of book, author, pages and price using structure.**
14. Define structure **Simple Interest**. Which containing three member amount, rate of interest and no. of years. Read the Value form User and find the Simple Interest.
15. **Create structure Calculate. Declare two members in this structure (x and Y).find the Addition, Subtraction Multiplication and Division of the member (Use concept of Initialization of Structure).**
16. WAP that read roll no. , name , marks of 3 subjects of a student using structure & print the result for same student with total marks and percentage.
17. WAP that read roll no. , name , marks of 9 subjects of a student using array within structure & print the result for same student with total marks and percentage.
18. WAP that read roll no. , name , marks of 3 subjects of n student using array of structure & print the result for each student with total marks and percentage.
19. **WAP that read roll no. , name , marks of 9 subjects of n student using**

**array of structure and array within structure. Print the result for each student with total marks and percentage.**

20. WAP to read 10 names & their telephone numbers. Search a given telephone number. If it is available in the list then display its name & telephone no.
21. **WAP to read personal information about 10 people & then print information for the people living in a specific city.**
22. **Write a C program to read student information like roll number, name and marks of 3 subjects using structure. Pass structure as an argument to user defined function and print the data in UDF.**

### Part-3 File Handling

23. **Write a program to read student number, name and city from the keyboard. Write these data into a file "stud1.txt".**
24. **Write a program to read data from the file "stud1.txt" and display them on the screen.**
25. **Write a program to copy the contents of a file "stud1.txt" into another file "stud2.txt".**
26. Write a program to read name of the file from user and check whether it is present or not in disk. Give an appropriate message.
27. Write a program to read name of the file from user and check whether it is present or not in disk. If present then display its contents on the screen, otherwise display an appropriate message.
28. Write a program to count total number of character from the given file.
29. **Write a program to find total number of uppercase letter, lowercase letter, blank space and special character from the given file.**
30. Write a program that will create a data file "cust.txt" containing complete customers information such as customer number, name, address contact number and email-id.(use structure variable)
31. Write a program to read a character and a file name. To count and print number of occurrences of a given character into a file.
32. **Write a program to merge two files into a single file. i.e. Append content of one file at the end of another file.**

### Part-4 Linked list

33. **Write a C program to create linear linked lists of customer number and name. Create 5 such nodes. Print them.**
34. Write a C program to create linear linked lists of roll number, student name and marks of 3 subjects. Create 5 such nodes. Print them.
35. Write a C program to create linear linked lists of roll number, student name and marks of 3 subjects. Create 5 such nodes. Calculate total and percentage for each node and print them.
36. Write a C program to create linear linked lists of roll number, student name and marks of 3 subjects. Create n such nodes. Print them.
37. Write an interactive C program to create linear linked lists of roll number, student name and marks of 3 subjects. Create nodes till user's choice. Print them.
38. **Write an interactive C program to create linear linked lists of roll number, student name and marks of 3 subjects. Insert new nodes at first position.**

- Create nodes till user's choice. Print them.**
39. **Write an interactive C program to create linear linked lists of roll number, student name and marks of 3 subjects. Insert new nodes at end of linked list. Create nodes till user's choice. Print them.**
40. **Write an interactive C program to create linear linked lists of roll number, student name and marks of 3 subjects. Insert new nodes by order. i.e. after insertion, the list is always maintained in the increasing order of student roll number. Create nodes till user's choice. Print them.**
41. **Write a menu driven interactive C program to create linear linked lists of roll number, student name and marks of 3 subjects. Create nodes till user's choice and perform following operation on linked list:**
1. **Print content of linked list.**
  2. **Count number of nodes in list.**
  3. **Edit content of student whose roll number is inputted by user.**
  4. **Delete a node of specified student.**
- Repeat definition number 34 to 41 for following examples:**
42. **Customer number, customer name, quantity purchased, unit price.**
43. **Employee number, name, basic salary, designation**
44. **Player number, player name, no. of matches played, batting average, bowling average**
45. **City name, population of city, area in kilometer, state name**
46. **Book no., book title, no. of pages, price, edition, publisher name**
47. **Item number, item name, stock, unit price**

### **Part-5 Stack & Queue**

48. **Write a menu driven program for stack with size 10 and perform following operations. Input integer numbers as a stack element.**
- 1] **Push (Insert element)**
  - 2] **Pop (Delete element)**
  - 3] **Display**
  - 4] **Exit**
- Proper validation for underflow and overflow of stack must be done.**
49. **Write a menu driven program for stack with size 10 and perform following operations. Input integer numbers as a stack element.**
- 1] **Push**
  - 2] **Pop**
  - 3] **Peep**
  - 4] **Change (Edit element)**
  - 5] **Display**
  - 6] **Exit**
- Proper validation for underflow and overflow of stack must be done.**
50. **Write a menu driven program for simple queue with size 10 and perform following operations. Input integer numbers as a queue element.**
- 1] **Insert Element**
  - 2] **Delete Element**
  - 3] **Display**
  - 4] **Exit**
- Proper validation for underflow and overflow of queue must be done.**
- Note : Definitions with bold effect are to be written in journal.**