

Assignment 5

Deadline: Falgun 13, 2075

Chapter 10: Files

1. WAP to open a new file. Read the name, address & telephone of 10 persons from the user and write to the file. After writing, display the content of the file.
2. Explain different types of file operations with examples.
3. Why are fwrite() & fread() functions used? Explain their arguments with examples.
4. Differentiate between:
 - a) r+ and w+ file modes.
 - b) fscanf() vs. scanf()
 - c) text and binary files

Chapter 11: FORTRAN

5. Write a program to read secured marks of a student and display PASS if the marks is greater than 40% else display "Fail".
6. Write a program in FORTRAN to compute the return amount (A) given by the expression $A = P(i(1+i)^n / ((1+i)^n - 1))$ on investment of P amount of money for n numbers of year and at interest rate i.
7. WAP to read a positive integer from the keyboard and count prime & composite digits in it.
8. WAP to evaluate the series $\cos(x) = 1 - x^2/2! + x^4/4! - x^6/6! + x^8/8! - \dots (-1)^{(n)} x^{(2n)}/(2n)!$, $n=1,2,3,4,\dots$
9. WAP to test members of entered array element *Armstrong & Even* or not and display that members.
10. WAP to calculate the cost of operating an electrical devices using formula $C = (WTK)/1000$, where *W* is number of Watts, *T* is time in hours & *K* is the Cost(in rupees) per Kilowatt hours. Store the value of C in 3D array when W varies from 100 watts to 1000 watts in steps of 100, T varies from 1 hours to 10 hours in step of 1 and K varies from Rs. 1.0 to 10.0 in steps of 1 rupee. Display the content of array.
11. WAP to compute $R = X*Y + Z^T$, where R, X, Y & Z are matrices of valid order and Z^T is the Transpose of Z.
12. Differentiate:
 - a) Stop vs. end statement
 - b) Logical if vs. arithmetic if
 - c) Do loop vs. implied loop