Index of Practical Notebook

General Instructions: Write Program in C++ to solve the following problems with and without one or more user defined functions where appropriate.

No. P-1 1. a) Solve suppressed cubic equations or transcendental functions by using bisection & Newton-Raphson method. P-2 1. b) Solve cubic general cubic equation by using determinant approach. P-3 2.0 Calculate the value of sin x, cos x and log (1 + x) using its series for some given x using WHILE or DO WHILE condition. P-4 3. a) Program to check whether any given number is prime or not. Write codes for both with and without user defined function. P-5 No. Program to find the factorial of any given number. Write codes for both with and without user defined function. P-6 3. c) Program to sort an array of numbers in ascending and descending order. Write codes for both with and without user defined function. P-7 3. d) Program to find the largest and smallest number that can be formed using digits of a given number. Write codes for both with and without user defined function. P-8 4. a) Program to take input of a user name and consumed current units and print an electric bill which billing criteria is as follows v) First 50 units cost 3.50 TK/unit vii) Next 250 units cost 3.50 TK/unit viii Next 250 units cost 3.50 TK/unit viii Units above 500 are charged at a rate 5.00TK/unit Make sure you implement the idea using user-defined function. P-9 4. b) Program to take input of a user name and yearly income and print income tax where the taxation criteria is as follows vi) First 250000 is tax free vii) 5% tax for next 250000 viii 10% tax for next 500000 x) 20% tax for next 500000 x) 20% tax for next 500000 x) 20% tax for next 500000 x) 40% tax for next 500000 x) Next 250 calls (151-400 minute) are charged at the rate of 1 TK/minute vii First 150 minutes is free of cost v) Next 250 calls (161-400 minute) are charged at the rate of 2/minute And all calls after 400 minutes, are charged at the rate of 1 TK/minute viii And all calls after 400 minutes	Problem	SL	Description	Page
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