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Assignment No. : 01

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| 1. | Write a C program to evaluate the following expression and display their results (a) x^2+2x^3 (2x) (b) $x+y^2+z^2$ Where x,y,z are integers. | 01-02 |
| 2. | Write a c program that input values for m and n and display the values of the Pythagorean triple generated by following formulas. Side1= $m^2- n^2$ Side2=2mn Hypotenuse m^2+n^2 | 03-04 |
| 3. | Write a C program to input amount from user and print minimum number of notes (Rs. 500, 100, 50, 20, 10, 5, 2, 1) required for the amount. | 05-07 |
| 4. | Write a C program to find all roots of a quadratic equation using if else. | 08-09 |
| 5. | Write a c program to print the given 3 integers in ascending orders using if and else. | 10-11 |
| 6. | Write a c program to check whether a given no is even or odd without using modulus and division operator. | 12 |
| 7. | Write a c program that input a 3-digit number and display in reverse order without using any loop. (input 234 output 432). | 13 |
| 8. | Write a c program that takes the length and width of a rectangular yard and length and width of rectangular house situated in the yard. your program should compute the time required to cut the grass at the rate of two square feet a second | 14-15 |
| 9. | Write a c program to evaluate $f(x)=1+x/(1+x^2)$, if $X < 0$ 0, if $x=0$ $1-x/(1+x)$, if $x>0$ | 16-17 |
| 10. | Write a program to find that the accepted number is positive negative or zero. using ternary operator. | 18 |
| 11. | Write a c program that takes as input the numerators and denominators of two fractions. Your program should display the numerator and denominators of the fraction that represent the product of two fractions. Also display the present equivalent of the resulting product. | 19-20 |
| 12. | The telephone company has following rate structure for long distance call (1) The regular rate for a call is 0.40 per minute (2) Any call after 6.00(1800 hours) but before 8 am (0800 hours) is discounted 50% discount. (3) Any call longer than 60 minute receives a 15% (4) All call subject to a 4% taxon the cost after discount. Write a c program that take start time for a call based on 24-hour clock and the length of the call in minutes and display the gross cost (before ant discount) should be display after netcost (after discount). | 21-22 |
| 13. | Write a C program to calculate the commission of a salesman considering three regions X,Y and Z depending on the sales amount as follows: for area code 'X' Sales amount: <5000 >=5000 Commission: 12% 15% for area code 'Y' Sales amount: <7000 >=7000 Commission : 12% 15% for area code 'Z' Sales amount: <6500 >=6500 Commission : 12% 15% | 23-24 |

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| 14. | Write a program that takes x-y coordinates of a point and print a message telling either an axis on which the point lies or the quadrant in which it is found. | 25-26 |
| 15. | <p>Write a program that will calculate and print bills for city power company. The rates vary depending on whether the use is residential, commercial, or industrial. The use code 'R' means residential, a code 'C' means commercial and code 'I' means industrial use. Any other code should be treated as error the rate computed as follows</p> <p>'R' :6.00 Rs plus 0.052 per kwh used</p> <p>'C': 60.00 for the first 1000 kwh and 0.045 for each additional kwh</p> <p>'I': Rate varies depending on time usage: peak hours 76.00 Rs first 1000kwh And 0.065 for additional kwh. Off peak hours: 40.00 Rs for first 1000kwh and 0.028 for each additional kwh.</p> <p>Your program should prompt the user to enter an integer account no, the use code and the necessary consumption figure in whole numbers of kilowatt-hours. Program should display the amount due from the user.</p> | 27-30 |