5CS021 – Numerical Methods and Concurrency

LAB REPORT – Week2

Attempt all questions

1. Write a C program to find cube of a number using function.
2. Write a program in C to swap two numbers using function.
3. Write a void function which finds and prints the midpoint coordinates of a line. The function should take in four parameters (x1, y1, x2 and y2).

   xmid=(x1+x2)/2, ymid=(y1+y2)/2
4. Write a program in C to check Armstrong and perfect numbers using the function.
5. Write a function named “velocityCalc” which returns an appropriate value for the formula “v=u+at”, where v is the final velocity, u is the initial velocity, a is the acceleration and t is the time that has elapsed. Depending upon which variable is set to “NAN” when the function is called, your function should work it out and return the value.
6. Write a void function named “equations” which solves simultaneous equations. Your program will take six parameters. E.g. function(double a, double b, double c, double d, double e, double f){}. By solving simultaneous equations, you are finding where the two lines cross each other, so your function should print an x and y coordinate.
   ax+by=c ……(i)

   dx+ey=f.....(ii)

   a = number in front of x of equation one

   b = number in front of y of equation one

   c = constant of equation one

d = number in front of x of equation two

e = number in front of y of equation two

f = constant of equation two

7.