Name of the Student:————————— **ID. No.** —————————-

Questions: (4+3+3)

(1) Use Newton's method to find second approximation to the 3rd root of 29, taking an initial approximation $x_0 = 3$. Compute the absolute error. Use 5 d.p. accuracy.

(2) Use Secant method to find the second approximation of the intersection point (x, y) of the graphs $y_1 = -\sqrt{x}$ and $y_2 = \ln x$, when $x_0 = 0.1$ and $x_1 = 1$. Use 4 d.p. accuracy.

(3) Use the best method to find the second approximation x_2 to the multiple root of the nonlinear equation $f(x) = 1 - \cos x = 0$, using $x_0 = 0.2$. Work with 5 d.p. accuracy.

—- Good Luck —-

Start your solutions from here ....