Math 301-121   Quiz 5 (A)

Name:..Sec#:..............ID#:.............................Ser#:.........

Q.1: Expand $f(x) = x^2$, $0 < x < 5$ in a Fourier Bessel series with the boundary condition

$$2J_2(5\alpha) + \alpha J_2'(5\alpha) = 0$$

Q.2: Expand $f(x) = x^2$, $-1 < x < 1$ into Fourier Legendre series. Write first three nonzero terms.