

Math 301 Quiz 5

(B)

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

Q.1: Find Fourier series expansion of $f(x) = \begin{cases} 0 & -1 < x < 0 \\ 1-x & 0 < x < 1 \end{cases}$

Q.2: Find eigenvalues and eigenfunctions of $y'' + \lambda y = 0$, $y(0) = 0$, $y(L) = 0$.

Q.3: Write $xy'' + (1 - x)y' + ny = 0$, $n = 0, 1, 2, \dots$ into self-adjoint form.