Quiz No: 4 Math202   Name:_____ID_____Section _____

Q1. Find annihilators of the following functions:

(a) $e^{2x} + e^{-x}$

(b) $xe^x \cos x$

(3): Find function(s) that are annihilated by the operator $D^3 - 2D^2 + 2D$

(4): Use annihilation approach to solve $y''' + y' = x^3$, where solutions of the associated homogeneous equation are $\{1, \cos x, \sin x\}$.

Q5. Use the variation of parameter method to solve $y'' + y' = \tan x$.