

Department of Mathematics and Statistics (KFUPM)
Math-333 Semester-181 QUIZ III

NAME:

S.No.

ID:

Maximum Marks: 08

Section:04

Time Allowed: 40 minutes

(1) Evaluate

(i) $\mathcal{L}\{t e^{-2t}\}$ (ii) $\mathcal{L}^{-1}\left(\frac{2s+3}{s^2+s+1}\right)$

(2) Use **Convolution Theorem** to find inverse Laplace transform of $G(s) = \frac{1}{s^2(s+1)}$.

(3) Solve the DE : $y'' - y' - 2y = \delta(t - 2)$, $y(0) = 1$, $y'(0) = 1$.