Department of Mathematics and Statistics (KFUPM)
Math-333 Semester-173 QUIZ III

NAME: S.No. ID:
Maximum Marks: 10 Section:06 Time Allowed: 35 minutes

(1) Evaluate

$(i)\ \mathcal{L}\{t\ e^t\ cosh(t)\}$ $(ii)\ \mathcal{L}^{-1}(\frac{3s+7}{s^2-2s-3})$

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

(3) Solve the following differential : $y'' - y' - 2y = \delta(t-\pi),\ \ y(0) = 1,\ \ y'(0) = 1$