

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

NAME:

S.No.

ID:

Maximum Marks: 8

Section:03

Time Allowed: 30 minutes

(1) Solve the boundary-value problem

$$\frac{\partial^2 u}{\partial x^2} = \frac{\partial u}{\partial t}, 0 < x < L, t > 0$$

$$u(0, t) = 0, u(L, t) = 0, t > 0$$

$$u(x, 0) = x^2, \quad 0 < x < L.$$