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

NAME: S.No. ID:
Maximum Marks: 8 Section:04 Time Allowed: 30 minutes

(1) Solve the boundary-value problem

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

$$u(0,t) = 0, u(2,t) = 0, t > 0$$

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