King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 301 – Term 181 – Quiz 5

Name:

Student ID #:

Section #: 1

Question 1. Solve the problem using seperation of variables

$$\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} = 0, \quad 0 < x < 1, \quad 0 < y < 2$$

$$u(0, y) = 0, \quad u(1, y) = 0$$
$$u(x, 0) = 0, \quad u(x, 2) = x.$$