**King Fahd University of Petroleum & Minerals**

**Serial # 0**

- 1 points for not writing your serial number

Electrical Engineering Department

EE315: Probabilistic Methods in Electrical Engineering (112)

**Quiz 5: Multi Random Variables**

Name: Key

The joint pdf of a bivariate r.v. (*X*,*Y*) is given

$$f\_{XY}\left(x,y\right)=\left\{\begin{matrix}kxy&o<x<1, 0<y<1\\0&othewise\end{matrix}\right.$$

Where k is a constant.

1. Find the value of $k$.
2. Are *X* and *Y* independent? Show your steps.
3. Find $(X+Y<1)$ ?



 Good Luck, **Dr. Ali Muqaibel**