

Faculty of Computers & Artificial Intelligence 2<sup>nd</sup> Term (2019-2020) Final Exam Information Security and Digital Forensics Program

Course Code: FBS111 Level: 1st level

**Subject: Probability and Statistics** 

Final Date: 7 / 6 /2020 Total Marks: Pass / Fail

Benha University

**Examiner(s):** Dr. Amal Abo El-khair

Research submission: From 31 May to 7 June 2020

## a) Write a research project in ONE of the following topics:

## Topic No. 1

Discrete random variable: pdf; joint pdf ;conditional pdf; margenal pdf ; cases of independent; expectation;variance; covariance. Some discrete pdf: binomial disribution; poisson disribution; the relation between them. Using applied example to show that.

## Topic No. 2

Continous random variable: pdf; joint pdf; conditional pdf; margenal pdf; cases of independent; expectation; variance; covariance. Some continous pdf: normal disribution; standared normal disribution; the relation between them. Using applied example to show that.

## Topic No. 3

Events: sample space; mutually exclusive, conditional; cases of independent. Theorems used in Bayes rule; important of Bayes rule in machine defective. Using applied examples to show that.

b) Notes: please, your research must contain the following elements:

•  $\mu$ ,  $\lambda t$ ,  $\sum$ ,  $\sigma^2$ 

GOOD LUCK,

**Examiner(s)** 

Dr.Amal Abo El-khair

**Program Coordinator** 

Dr. Ahmed Taha