# Philadelphia University Faculty of Engineering 

Marking Scheme

Examination Paper<br>Department of Communication \& Electronics Engineering

## Probability and Random Variables

First Quiz

First semester
Date: 06/11/2020
Section 1
Weighting 5\% of the module total

Lecturer:
Coordinator:
Internal Examiner:

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## Marking Scheme <br> Probability and Random Variables (650364)

The presented quiz questions are organized to overcome course material through 1 question.
The all questions are compulsory requested to be answered.

## $\underline{\text { Marking Assignments }}$

Question 1: This question is attributed with 5 marks if answered properly,

## Solution

| Gender | BR | BL | Total |
| :---: | :---: | :---: | :---: |
| $\mathbf{M}$ | $\mathbf{7 0}$ | $\mathbf{2 0}$ | $\mathbf{9 0}$ |
| $\mathbf{F}$ | $\mathbf{1 0 0}$ | $\mathbf{1 0}$ | $\mathbf{1 1 0}$ |
| Total | $\mathbf{1 7 0}$ | $\mathbf{3 0}$ | $\mathbf{2 0 0}$ |

a) $P(F)=\frac{110}{200}=\frac{11}{20}$
b) $\boldsymbol{P}(M \cap B R)=\frac{70}{200}=\frac{7}{20}$
c) $P(F \mid B R)=\frac{100}{170}=\frac{10}{17}$
d) $P(M \mid B L)=\frac{20}{30}=\frac{2}{3}$
e) $P(B L \mid F)=\frac{10}{110}=\frac{1}{11}$

