

Department of Bitechology  
Biostatistics BT2023  
Fall semester Aug-Dec 2022  
Quiz 1  
6 September 2022

Maximum Marks: 20

**If required, justify the method used in finding the answer and its limitation**

**Maximum Time: 30 mintuts**

1. The systolic blood pressures of a group of women were measured (in mmHg) after administration of a newly developed oral contraceptive.

127, 128, 140, 119, 145, 130, 148, 135, 129, 137, 128,  
133, 139, 121, 137, 131, 120, 125, 137, 127, 138, 122

Find out the **mean, mode, median and interquartile range** of the blood pressure

2. In order to generate a histogram in a given frequency distribution, what is the best way to define the number of bins. In other words, what is the formula which gives a nice estimate of the number of bins in a histogram ?
3. Write down the empirical relationship between arithmecal mean, mode and median.
4. Compute the average burned calories alongwith the **standard deviation** for the following data set and find out the **coefficient of the skewness**.

Kcal	100-129	130-159	160-189	190-219	220 -249
Frequency	5	4	12	6	3