## Reliability Class Activity Behavioral Research: Statistical Methods, Spring 2023

## **Instructions**

Please read the following instructions carefully before attempting.

- 1. The dataset for all questions are available at this link. The required sheet name is mentioned in each question. Download the dataset and load in your code accordingly.
- 2. If you are coding in R, make sure to submit only the pdf file after knitting. File name format should be <Roll Number>\_Reliability\_Class\_Activity.pdf
- 3. If you are using any other language/software, submit the appropriate file following the same nomenclature.

## 1 Advert Rating: Outlier Detection

26 participants (labelled A to Z) were asked to rate sentiment of 110 advertisements on a likert scale (-4 to 4). The individual ratings have been provided in Sheet 1 (Advert Rating).

However, one of the participants has provided random ratings. Using a correlation heatmap, find out the outlier.

## 2 Reliable Job: Internal Consistency

30 participants were given a questionnaire that measured job satisfaction and job performance through 4 questions each. They have been denoted by fields 'JS' and 'JP' respectively in the Sheet 2 (Reliable Job).

Calculate Cronbach alpha for each of the measure and comment on the internal consistency and acceptability of the measures.