2nd Term, 2019-2020 (due date: April 1, 2020)

A 10-item questionnaire was developed to measure how teachers cope with difficulties in their work. The items were coded in a 4-point Likert scale ($1 = did \ not \ try \ this \ approach$; $4 = used \ this \ approach \ extensively$):

- 1. I discussed my frustrations and feeling with person(s) at school.
- 2. I tried to develop a step-by-step plan of action to remedy the problems.
- 3. I expressed my emotions to my family and close friends.
- 4. I read, attended workshops, or sought some other educational approach to correct them.
- 5. I tried to be emotionally honest with myself about problems.
- 6. I sought advice from others on how I should solve the problems.
- 7. I explored the emotions caused by the problems.
- 8. I took direct action to try to correct the problems.
- 9. I told someone I could trust about how I felt about the problems.
- 10. I put aside other activities so that I could work to solve the problems.

89 teachers completed the questionnaire and the raw data were saved as *hw3(2020).dat*, which can be downloaded from *CUHK Blackboard*.

- a. Examine if the data are appropriate for performing an exploratory factor analysis.
- b. Based on the given data, perform an exploratory factor analysis using R. How many factors should be extracted and why?
- c. Rotate the factors by the method of Varimax and interpret the factors.
- d. How "good" is the factor solution?

***** WHEN YOU SUBMIT YOUR ASSIGNMENT, DON'T FORGET TO ATTACH A SIGNED STATEMENT ON ACADEMIC HONESTY *****