## Section BB – Fall 2018

## Assignment No. 1

**Due date: Sunday, Oct 10 @23:59 (no paper handout/return)**

**Instructions – please read carefully**

* Prepare your answers to each question as a code within a single SAS program and name the file MYLASTNAME\_A1.SAS (for example: Smith\_A1.sas.
* Data must be stored in-stream (within your code) or accessed externally by your SAS code. In the latter case you should reference your data through the path C:\445\Course\_data when using infile or as SAS dataset with libname statements, as shown below:

INFILE ‘C:\445\Course\_data\mydataset.txt’;

LIBNAME DATA445 ‘C:\445\Course\_data’;

* Don’t change the path C:\445\Course\_data since we will be using it to store all data throughout the course for work in class and home.
* Use appropriate commenting, titles, labeling, informats and formats in your program.
* Use PROC PRINT at each step of your solution to verify the output and your results. Check the SASLOG and SAS output before submitting your program.
* Label and comment each data step of your solution to indicate what you are doing. This is a good programming habit and it is part of evaluation.
* Don’t change the values or layout of the data sets provided in the question. In order to get a full mark your SAS program must work in my computer (when pasted into SAS Editor) “as is” with data on my laptop stored in C:\445\Course\_data
* Test your program before submitting! Run each module (small tasks) of your code individually and check your SASLOG for errors as you develop your code.
* Submit your output to Moodle before due date. You can correct your solution and resubmit it before the deadline. I will use your latest submission only.
* You may work in group of 4-5 with one person submitting a joint assignment. Indicate each individual contribution to the joint submission. Explain who did what.
* Late submissions will not be marked.
* At the top of your program insert the following lines:

/\* Assignment No. 1

Your name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Your name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Your name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Your name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Your name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mark \_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_

\*/

For each question in your SAS code put comment, e.g. **\* Question 1a;**

**Question 1**

1. Copy and paste the program below into SAS editor. Debug it to create work.newemps dataset and format Salary with $ sign and 2 decimals for cents.
2. Print the data set work.newemps
3. Print descriptor part of the dataset using proc contents. What are the types, length and format of the variables in this dataset?

data work.newemps;

input First\_Name Last\_Name $

Job\_Title $ Salary $;

datalines;

Steven Worton Auditor 40450

Merle Hieds Trainee 24025

John Smith Manager 35666

;

run;

**Question 2**

a) Create a new SAS dataset Assign1.Survey2007 from the data given below by completing <fill in> sections. The variables in the dataset are: responder’s Age, Gender and answers to 5 questions to be denoted as Q1,…,Q5 with values from 1 (Strongly agree) to 5 (Strongly disagree). Label and format the variables in a meaningful way. Fix the syntax where needed. Do not edit the dataset. Make sure your code works before submitting.

**data** <fill in>

input <fill in>

<fill in>;

23 M 5243

30 F 11123

42 M 23555

48 F 55531

55 F 4 232

62 F 3333

68 M 4412

<fill in>

**run;**

b) Create a subset of the above dataset that contains only females older than 40 years old who answered 5 (strongly disagree) to questions 1 and 3. Print your output.

**Question 3**

**TRUE or FALSE?**

* 1. The two types of steps that can make up a SAS program are DATA and PROC.
  2. A statement always ends in a colon.
  3. Data sets located in the Sasuser data library are considered temporary.
  4. A variable name and the name of a data set can be up to 32 characters long.
  5. By default, a variable name can contain special characters such as a dash (−).
  6. A numeric variable is stored as 32 bytes by default.
  7. A SAS date value represents the number of days between January 1, 1960 and a specific date.
  8. A missing numeric value is represented with a zero.
  9. A missing character value is represented with a blank.
  10. A statement that starts with an asterisk is a SAS comment.

**Questions from the textbook:**

**In comments, explain the purpose of your code.**

**Questions 3.6, 3.10**

**Question 5.2, 5.4 (print data)**

**Question 6.2**

**Question 7.6**

**Question 8.14 and plot the quadratic function using**

**proc** **gplot** data=square;

plot y\*n;

**run**;

**Question 9.6, 9.10, 9.12**

**Question 10.10, 10.12**

Review Lessons 1,2,3 from SAS® Programming 1: Essentials. Then, do the Quiz from the end of each Lesson and submit as your results, hopefully 100%, zipped in one file.