STAT 540: Test 2

1. Refer to the attached Data Set 1, with variables Stock, Price, Net, Volume (20 points)

   (a) Write the INPUT statement you would use to read the data set as free format

   (b) Now write another INPUT statement to read the data set as column-formatted input

   (c) Using the @ command, write an INPUT statement that only reads Volume if Net is negative

   (d) *Grad students* Write an INPUT statement that will read Data Set 2 (it has the same variable names as Data Set 1)

2. Assume that the data in Data Set 1 has been stored in SAS data set WORK.Stocks (20 points)

   (a) Write a command to store stocks with a net gain in price in a separate data set named WORK.PosStocks

   (b) List the records that were stored in PosStocks

   (c) Write commands that store WORK.PosStocks in permanent SAS data set Stock.PosStocks. Be sure to include LIBNAME while specifying a directory of your choice

   (d) Write a command to store stocks with a net gain in price *and* a volume less than 20,000,000 shares. Call this new data set WORK.SmallPos

3. Consider Data Set 3. Suppose the data has been stored in a data set names WORK.travel (20 points)

   (a) Write PROC PRINT commands to print only the data with a distance over 100 miles

   (b) Write IF-THEN-ELSE commands to create a variable named TripType with levels Short, Medium, Long for trips less than 50 miles, trips between 51 and 120 miles, and trips greater than 120 miles, respectively

   (c) Write commands to compute means for each of the categories of TripType

4. List the number of SAS steps and the number of SAS statements in SAS Program 1 (10 points)

5. Consider SAS Program 2 (20 points)

   (a) Write SAS code to create variables Month, Day, and Year from the input variable EffDate

   (b) Write SAS code to print the output in an attractive format

   (c) *Grad Students* Write SAS code to create a character variable CharEffDate from the character variables Month, Day Year that would convert the dates to the following form:

   ```
   08/15/1989
   08/16/1994
   12/01/2005
   ```

6. Missing values are coded as -99 or . in SAS Program 3; modify SAS program 3 to convert all missing values to SAS's missing value code (.) using an ARRAY statement. (10 points)

Data set 1

```
/*--5---10---15---20---25---30---35*/
CSCO  18.56 +.12   46132122
INTC  24.98 -.15   42953742
QQQ   58.94 .09    39018248
CMCSA 23.85 -.74   36769304
ORCL  33.69 .03    25484458
MU    5.88  .18    21026866
YHOO  16.56 -.07   19399112
HBAN  5.47  .07    18692444
DELL  16.31 -.01   18210492
```

Data set 2

```
/*--5---10---15---20---25---30---35*/
CSCO  $18.56 +.12   46,132,122
INTC  $24.98 -.15   42,953,742
QQQ   $58.94 .09    39,018,248
CMCSA $23.85 -.74   36,769,304
ORCL  $33.69 .03    25,484,458
MU    $5.88  .18    21,026,866
YHOO  $16.56 -.07   19,399,112
HBAN  $5.47  .07    18,692,444
DELL  $16.31 -.01   18,210,492
```

Data set 3

```
data travel;
input start $10. @12 destination $11. @22 distance;
datalines;
/*--5----10---15---20---25---30---35*/
Columbia Charleston 112
Abbeville Aiken 69
Cheraw Beaufort 188
Greenville Beaufort 220
Columbia Lexington 13
Lexington Orangeburg 44
Camden Aiken 88
;
```

SAS Program 1

```
data prog1;
infile 'e:\stat 540\test2.txt' sep='09'X missover truncover dsd;
```

```
input a $10. @15 b $9. x 30-33;
if x gt 7;
run;
data prog2;
set prog1;
y=compress(cat(a,b)); drop a b; run;
proc print data=prog2 label;
label y='Full Name';
run;
```

SAS Program 2

```
data date;
input EffDate date9.;
datalines;
15Aug1989
16Aug1994
1Dec2005
;
run;
```

SAS Program 3

```
data miss;
input x1 x2 x3 x4;
datalines;
-0.6 -0.2 -99 -0.9
1.6 0.0 2.5 -0.4
. -99 0.4 -0.5
;
```