

```

* ;
* ;
ods graphics on;
* ;
* MANOVA Model 1: X19 X20 X21 = X5;
* ;
options ls=80 ps=50 nodate pageno=1;
* ;
* Input HBAT200 ;
* ;
Data HBAT200;
Infile 'C:\Documents and Settings\Thomas F Brantle\My
Documents\Stevens_2006\Stevens_Teaching\BIA_652_Multivariate_2013_Summer I\Class_11_Chapter
7\HBAT200_Tabs.txt' DLM = '09'X TRUNCOVER;
Input ID X1 X2 X3 X4 X5 X6 X7 X8 X9 X10 X11 X12 X13 X14 X15 X16 X17 X18 X19 X20 X21 X22 X23;
* ;
Data HBAT200;
Set HBAT200 (Keep = X5 X19 X20 X21);
Label X5 = 'X5 - Distribution System'
X19 = 'X19 - Satisfaction'
X20 = 'X20 - Likely to Recommend'
X21 = 'X21 - Likely to Purchase';
* ;
Proc Print Data = HBAT200;
* ;
* Exploratory Data Analysis - Means ;
* ;
* X19 - Satisfaction;
* ;
Proc Means Data = HBAT200;
Var X19 X20 X21;
* ;
Proc Sort Data = HBAT200;
By X5;
* ;
Proc Means Data = HBAT200;
Var X19 X20 X21;
By X5;
ID X5;
* ;
* Exploratory Data Analysis - Univariate ;
* ;
* X19 - Satisfaction;
* ;
Proc Univariate Data = HBAT200 Normal Plot;
Var X19 X20 X21;
* ;
Proc Sort Data = HBAT200;
By X5;
* ;
Proc Univariate Data = HBAT200 Normal Plot;
Var X19 X20 X21;
By X5;
ID X5;
* ;
* GLM MANOVA Analysis ;
* ;
Proc GLM Data = HBAT200;
Class X5;
Model X19 X20 X21 = X5;
Means X5 / Scheffe Tukey LSD SNK Duncan;
Means X5 / Hovtest = Levene Hovtest = bf Hovtest = Bartlett;
Means X5;
Manova H = X5 / MStat = Exact;
* ;
* ;
Run;
Quit;

```