Assignment 5 Template

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<u>Problem 2:</u> Fill in the information below based on your data which were generated using your ID number as the seed for the random number generator.

Model = 2

Insert the original table of observed and expected frequencies here.

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]	[,10]	[,11]
y	0.000	1.00	2.0	3.00	4.00	5.00	6.00	7.000	8.000	9.000	10.0000
observed	17.000	13.00	26.0	26.00	19.00	15.00	11.00	8.000	8.000	1.000	1.0000
expected	3.378	12.81	24.3	30.73	29.14	22.11	13.98	7.575	3.592	1.514	0.5743

	[,12]	[,13]	[,14]	[,15]	[,16]	[,17]	[,18]
y	11.000	12.0000	13.00000	14.000000	15.000000	1.600e+01	1.700e+01
observed	1.000	1.0000	1.00000	0.000000	0.000000	1.000e+00	0.000e+00
expected	0.198	0.0626	0.01827	0.004949	0.001252	2.967e-04	6.621e-05

	[,19]
y	1.800e+01
observed	1.000e+00
expected	1.738e-05

Insert the table of observed and expected frequencies after collapsing here.

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]
y	1.00	2.0	3.00	4.00	5.00	6.00	7.000	8.000
observed	30.00	26.0	26.00	19.00	15.00	11.00	8.000	15.000
expected	16.19	24.3	30.73	29.14	22.11	13.98	7.575	5.965

The hypothesis of interest is the data arise from a Poisson model.

The observed value of the likelihood ratio statistic for testing this hypothesis

= 27.18211

The degrees of freedom for the Chi-squared distribution = 6

The p-value = 0.0001338625

since p < 0.05, this is a likely conclusion

The observed value of the Pearson Goodness of Fit statistic for testing this hypothesis = 32.77925

The degrees of freedom for the Chi-squared distribution = 6

The p-value = 1.156272e-05

Since p < 0.05, this is a likely conclusion