26 BE 7023 & 26 PH 7023: Advanced Biostatistics

Autumn 2018

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Homework Sheet No.3 Due date: September 26, 2018 Maximum Points: 30

Categorical Predictor + Anova and Multiple Comparisons

Download the data ‘litter’ from the ‘multcomp’ package.

1. Describe the data.

2. What is the dimension of the data?

3. What is the nature of each variable in the data?

4. Get summary statistics of the variables.

5. Obtain the mean ‘weight’ by dose.

6. Regress ‘weight’ by ‘dose.’

7. What is R2? Is it significant?

8. Do ‘aov’ of ‘weight’ by ‘dose.’ Do doses differ significantly in average weight? Report the p value.

9. Test normality and homoscedasticity.

10. Do pairwise comparisons by Tukey’s HSD.

11. Get a graph of the pairwise comparisons.

12. Get a graph of cld. Comment on the graph.

13. Regress weight by dose and gestation. Is gestation significant?

14. Do pairwise comparisons by dose.

15. Get a graph of the pairwise comparisons.