**Statistical Genomics (545)**

Spring 2021

**Quiz**

Open book

Due on March 22, 2021, 3:10pm

First name:

Last Name:

Pre-recorded lecture: Multiple loci mixed linear model

**Instruction**: Highlight the best answer **(ONLY** **ONE**) for each question. Email this file to TA (Zhou Tang, email: zhou.tang@wsu.edu) with subject of StaGen545QuizzesYYYYMMDD

1. Which model give the highest statistical power for a given type I error?

A. t test

B. MLM with both population structure and kinship

C. GLM without population structure

D. GLM with population structure

2. For a finally selected marker in the MLMM algorithm, which model is used to get the final p value for the finally selected marker?

A. A model with the finally selected marker fitted as a fixed effect while testing markers iteratively one at a time.

B. A model with all the finally selected markers fitted as fixed effects

C. A model with all the finally selected marker fitted as fixed effects while testing markers iteratively one at a time

D. A model with the finally selected marker fitted as a fixed effect

3. Which if following describe the backward process the best for the multiple loci mixed linear model (hint: comparing to backward process)?

A. Incorporate kinship

B. Incorporate population structure

C. Fit multiple associated marker as covariates and test the rest markers one at a time

D. Test the multiple associated markers simultaneously and remove the least significant marker

4. Which method tests multiple markers simultaneously?

A. MLM

B. CMLM

C. MLMM

D. EMMA