**AICE Biology Guided Reading: Crop Plants (J&F Ch 23)**Answer on your own sheet of paper in blue or black ink. You may type this for 5 extra points ☺. This assignment is worth 20 points.

1. What are cereal crops and why are they essential to a human diet?

2. Describe the conditions best suited for maize growth, as well as the regions of the world in which it is most important.

3. Using a combination of diagrams and explanations, describe the process of maize pollination and fertilization. Include a contrast of wind-pollination and pollinator-pollinated pollination.

3. What is the difference between cross-pollination and self-pollination?

4. Describe the phenomenon of hybrid vigor.

5. Diagram a maize kernel and explain how it develops.

6. Briefly outline the process of C4 photosynthesis and compare it to C3 photosynthesis.

7. Describe adaptations of sorghum for dry environments.

8. Describe adaptations of rice for wet environments.

9. How have crop plants been improved over many generations into more productive food sources?

10. Describe the genetic and historic background of wheat production and evolution.

11. What is golden rice and what potential significance does it hold for the world food crisis?

12. Describe how gene technologies can be used to generate genetically modified crops.