1. A congenital defect is a health problem or physical abnormality present at ________________.

2. Two major causes of congenital defects are ________________ and ________________ factors.

3. An alteration or mutation within the genome can arise from exposure to (circle all that apply):
   a. Chromosomal abnormality
   b. Single gene mutation
   c. Nutrition Levels
   d. Prescribed Medication

4. Environmental factors that can potentially cause congenital defects (circle all that apply):
   a. Infection
   b. Ultraviolet radiation
   c. Tobacco
   d. Nutrition Levels

5. Animal models provide a platform for understanding disease without the added risk of causing harm to a ________________.

6. A federal agency overlooking the ethical and humane treatment of animal research is IACUC, which stands for:
   a. I
   b. A
   c. C
   d. U
   e. C

7. Two examples of animal models used in research are ________________ and ________________.

8. The developing chick embryo has a ________________ chambered heart which is similar to a human.
9. Scientists always use a control sample when conducting experiments for a _________________.

10. A sham is a type of control condition that involves a ________________ procedure.

Extra Credit Questions

1. What is the difference between quantitative and qualitative observations?

2. How does one calculate variability between samples?

3. When conducting experiments, why must all scientists use a control?

4. Is retinoic acid an environmental or genetic factor that effects embryonic development?

5. What happened when we added RA systemically to our embryo and what does this tell us about the experiment?