Matching. Answers can be used only once. 2 pts. each.

A. ovary  I. splanchnic mesoderm
B. uterus  J. neural crest
C. pituitary  K. chorionic gonadotropin (LH)
D. primary spermatocyte  L. progesterone
E. zygote  M. polar body (second)
F. yolk sac  N. chordamesoderm
G. amnion  O. cortical granules
H. somatic mesoderm

1. Entering first meiotic division.
2. Hormone produced by embryo which maintains corpus luteum.
3. Target organ of ovarian hormones.
4. Extraembryonic membrane containing endoderm and mesoderm.
5. Produces FSH and LH.
6. Contains one-half the normal diploid chromosome number.
7. Gives rise to ganglion cells.
8. Structure important in releasing secretory material at surface of eggs after fertilized.
9. Type of mesoderm associated with amnion and chorion.
10. Causes induction of neural plate from ectoderm overlying it.

True-False. 2 pts. each.

1. Preformation is the accepted modern idea of development through growth of preformed individuals.
2. The corpus luteum is produced in the ovary from the empty follicle after ovulation.
3. Capacitation of sperm is essential to fertilization and occurs at the oviduct.
4. FSH and LH are produced by the pituitary in males but do not result in cyclic changes of the testes.
5. Spermatozoa lack nuclei and mitochondria.
6. Members of a chromosome pair do not behave independently at meiosis I, but undergo synapsis and line up opposite on the metaphase plate.
7. Eggs entered by y-chromosome-containing sperm will yield female individuals.
8. The pill as a contraceptive prevents the uterine cycle while allowing the ovarian cycle.
9. The egg is fertilized (by sperm) in the uterus after being carried there by the oviduct.
10. Cytotrophoblast cells are first to invade the uterine walls during implantation and placenta formation.
Short Answer. A few words, not necessarily complete sentences. 3 pts. each.

1. Describe one block to polyspermy.

2. Where do somatic motor neurons originate during development and how do they reach the muscles?

3. What is the difference between the origins of fraternal and identical twins?

4. Describe one way that development of striated skeletal muscle is different from that of smooth muscle.

5. Describe the direction of mesodermal movements at gastrulation in the embryonic disc.
6. What does the inner cell mass give rise to?

7. What egg coats does a sperm have to penetrate to get to the egg?

8. Compare one mechanical barrier contraceptive with a chemical one in terms of ways of preventing egg and sperm union.

9. Why is the menstrual cycle called a negative feedback cycle?

10. How are sperm moved from testis to oviduct?