You will have the full three hour exam period for this exam. Ten of the following questions will be selected by the instructor (i.e., you will not be given a choice as to which questions to answer). You may not bring any notes or other materials with you to the exam. Each question will be worth 10 points. Read each question carefully, and ensure that your answer addresses all parts of the question. Your answers should be concise and to the point – including extraneous material will not help, and may hurt, your grade. The exam will be held Thursday, March 25th, 8:00-11:00 a.m. in Haines Hall Room A2.

1) Why is gametic dimorphism often associated with morphological and behavioral differences between the sexes? Use at least one human morphological feature and one human behavioral feature to illustrate your point.

2. a) Using cross-species comparisons among primates, describe two pieces of morphological evidence which support the assertion that human males are ‘designed’ to engage in sperm competition. Be sure to explain why each morphological attribute supports this conclusion.
   b) Describe two pieces of evidence concerning human behavior (these do not need to be contrasted with the behavior of other primates) that support this assertion. Again, be sure to explain why each behavioral attribute supports this conclusion.

3. a) Describe three important criteria discussed in the course which are used by women in selecting a long term partner, and explain these criteria from an evolutionary perspective.
   b) Use your answer to (a) to explain human female jealousy from an evolutionary perspective.

4) Men are more likely to be involved in lethal violence than women.
   a) Provide an ultimate explanation of this sex difference.
   b) The male propensity toward violence and other risky behaviors changes i) over the course of the lifespan, and ii) with marital status. Describe each of these changes and explain them from an evolutionary perspective.

5) While human cultures exhibit a great range of variation, many of them include practices which serve to control women and their sexuality.
   a) Explain the selective pressures that gave rise to men’s inclinations to treat women like property.
   b) Focusing on one specific practice discuss how cultural institutions can either hypercognize or hypocognize evolved male inclinations toward proprietariness.
   c) Women often perpetuate practices which enhance male control over female sexual behavior. Explain this pattern from both a proximate perspective (i.e., what are their motives) and an ultimate perspective.

6) a) What do studies of male homosexuals in North America reveal about heterosexual male sociosexual behavior and motives in regard to promiscuity?
   b) Explain your answer to (a) from an evolutionary perspective.
7. a) Describe the Westermarck Hypothesis, and briefly summarize one piece of ethnographic (not experimental) evidence which supports it.
   b) What problem do both nepotistic and inbreeding avoidance mechanisms have to solve?
   c) Explain the problem of constancy. What phenotypic feature offers a solution to the problem of constancy?

8) Deception is a common tactic in human mating behavior.
   a) Drawing on the ideas discussed in this course, in considering the early stages of courtship, predict i) two things which males are likely to be deceptive about, and ii) two things which females are likely to be deceptive about. In each case, employing an evolutionary perspective, explain why people are deceptive about these things.
   b) How does the possibility of being deceived shape behavior during courtship?

9 a) Describe the costs which are potentially associated with sex in any sexually reproducing species.
   b) If sexual reproduction is costly, why is it so common across species?
   c) From an ultimate, rather than a proximate, perspective, why is sex fun?

10) Researchers showed women pictures of male faces which had been manipulated using a computer so as to display more, or fewer, male secondary sex characteristics (i.e., some faces were more ‘masculinized’ than others). Interestingly, the researchers found that women’s preferences for degree of masculinization varied as a function of position in the menstrual cycle. Drawing on the ideas presented in this course, what impact would you expect cycle position to have in this regard? Justify your response.

11) A number of social programs attempt to increase the likelihood that poor children will achieve success in American society. The most effective programs share a common formula: Beginning early in the child’s life, social workers regularly visit the child’s home. They provide guidance in parenting techniques, advice on nutrition and schooling, and financial assistance for meeting basic needs. They also take a direct interest in the child, and interact in a friendly and supportive manner with her or him. Female graduates of these programs are less likely than their peers to i) become pregnant as teenagers, ii) become pregnant outside of marriage, and iii) abuse or neglect their children. Male graduates are less likely than their peers to i) be convicted of a crime, and ii) be injured or killed in a violent altercation.
   Using an evolutionary perspective, explain a) why the problematic patterns of behavior occur among underprivileged children, and b) why the interventions make a difference.

12) Researchers recorded the statements made by maternal grandparents about their grandchildren soon after birth. They found that the grandparents were more likely to point out physical resemblances between the child and one of the parents than they were to point out resemblances between the child and the other parent. Describe which parent is more likely to be said to resemble the child, and explain the grandparents’ behavior from an evolutionary perspective.
13) Pedophilia is much more common among men than among women. There are two plausible evolutionary explanations for this pattern (the explanations are not mutually exclusive).
   a) From both a proximate and an ultimate perspective, explain why paraphilias in general are more common among men than among women.
   b) Explain why differences between the mate selection criteria used by men and those used by women lead us to expect that pedophilia in particular will be more common among men than among women.

14 a) Describe the evidence supporting the claim that women possess innate psychological mechanisms that influence their exposure to the risk of rape.
   b) Explain the selective pressures that would have favored the evolution of such mechanisms.
   c) The timing of rape across the menstrual cycle in contemporary societies is not consistent with the claim that women possess innate rape-avoidance mechanisms. Explain how these data are inconsistent with the experimental results, then explain how it is possible to reconcile these two bodies of material (epidemiological and experimental).

15 a) What is fluctuating asymmetry?
   b) Summarize evidence indicating that male reproductive opportunities are contingent on degree of fluctuating asymmetry.
   c) Why would fluctuating asymmetry be a useful cue to attend to in evaluating potential mates?

16) Many studies suggest that there is a reduction in caloric consumption around the time of ovulation.
   a) Explain why, given that these studies were conducted in the U.S.A., we should expect to see an even stronger periovulatory effect among women in traditional foraging societies.
   b) What is the probable ultimate function of the periovulatory nadir in caloric consumption?
   c) Would you expect this periovulatory nadir to occur among women who are currently in a long-term relationship? Justify your answer.

17) a) Why, from an evolutionary perspective, is menopause puzzling?
   b) Summarize a hypothesis discussed in this course that addresses this issue, and describe the evidence for or against that hypothesis.

18) Women and men differ in a number of ways with regard to olfaction.
   a) Describe three of these differences.
   b) Explain how these differences are congruent with Parental Investment Theory.

19) Although some investigators have proposed that rape behavior is produced by a specialized mental mechanism that evolved specifically for this purpose, other scholars argue that rape is a by-product of mental mechanisms that do not focus on rape per se. Identify the mental mechanisms central to the by-product hypothesis, and explain how these mechanisms could together give rise to rape.

20) Women vary substantially with regard to i) whether they are currently in a relationship, ii) the duration of such a relationship, iii) the qualities of their mate. Discuss how these factors might impact the likelihood that a woman would be inclined to engage in extra-pair copulations.