EUPRIM-Net Course "Primate Social Systems, Reproduction, and Breeding", 24-26 October 2007

Your name: …….

Please mark the correct answer(s) by ticking the small circles

Important primate features are:
- o larger body sizes compared to other mammals
- o long life spans
- o large brains relative to body size
- o hands and feet with claws specialized for arboreal lifestyle

Most primates are:
- o diurnal (active during the day)
- o terrestrial
- o almost always in groups
- o almost always in pairs or dispersed

What is characteristic of dominance hierarchy and style in female rhesus macaques?
- o relaxed (tolerant) dominance style
- o strict (despotic) dominance style
- o dominance hierarchy is linear
- o dominance hierarchy is nepotistic (kin biased)

What applies to rhesus macaques?
- o within group competition is strong
- o female alliances are not important
- o female alliances are important
- o female philopatry
- o male philopatry

According to the socio-ecological model, which factors are responsible for distribution and relationships among females?
- o distribution of males
- o food availability
- o predation and disease risk
- o intersexual conflict (male-female conflict)

Most primate species
- o are monogamous
- o have significant parental care by both males and females
- o are characterised by low level of competition for mates
- o are polyandrous
- o none of the above

What is generally the limiting resource for primate males?

- territory
- mates
- safe refuges from predators
- food
- none of the above

What is generally the limiting resource for primate females?

- territory
- mates
- safe refuges from predators
- food
- none of the above

Intrasexual competition is defined as:

- competition between males and females
- competition between males for access to females
- competition between females for access to males
- competition between members of the same sex for access to mates
- none of the above

Imagine you observe a species of primates in which the males are roughly similar in size to the females and both sexes invest equally to the care of their offspring. The mating system is likely to be:

- promiscuous
- polygynous
- polyandrous
- monogamous
- none of the above

Infanticide in nonhuman primates

- is obviously maladaptive
- may have evolved as a result of a conflict between male and female reproductive strategies
- is commonly committed by both sexes
- occurs in only two species
- is uncorrelated with other events in the social group

Hypotheses as to why female primates mate with multiple males include:

- to guarantee fertilisation
- to decrease the sperm available for rival females
- to confuse paternity
- to encourage post-copulatory mechanisms of sexual selection
- all of the above

Tamarins are unusual primates because:

- females have unexpectedly high reproductive rates
- females will sometimes live in polyandry
- females regularly give birth to twins
- males often carry offspring more than the mother does
- all of the above

Which of the following statements is true about exaggerated female sexual swellings in primates:

- sexual swellings accurately pinpoint the day that a female ovulates
- sexual swellings occur in many New World primate species
- sexual swellings are associated with multi-male, multi-female breeding systems
- sexual swellings are associated with monogamous breeding systems
- sexual swellings tend to occur in nocturnal species

Polygynous groups include

- one adult male and one adult female
- more than one adult male and more than one adult female
- more than one adult male and one adult female
- one adult male and more than one adult female
- several related adult males and females

Ovarian cycles in prosimians differ from those in Old World primates by having

- longer follicular phases
- shorter follicular phases
- longer luteal phases
- shorter luteal phases
- there are no differences

Individual variation in ovarian cycle length in Anthropoid primates is primarily due to variation in the length of the

- follicular phase
- luteal phase
- both
- peri-ovulatory period

What is primarily responsible for determining the timing of ovulation (i.e. the “Zeitgeber”) in primates?

- pituitary
- corpus luteum
- ovary
- hypothalamus
- mating stimulus

Menstruation occurs in
- all primates
- only Old World primates
- only humans and apes
- none of the above

The extended period of receptivity seen in most Old World monkeys and apes most likely
- provides males with more time to find females in the fertile phase
- prolongs period of consortship to strengthen bonds between mating partners
- facilitates mating with multiple male partners
- provides increased opportunities for females to confuse paternity

Which of the following statements are true?
- Chorionic gonadotrophin (CG) is a signal from the maternal endometrium to prolong the lifespan of the corpus lutuem
- A characteristic of all primates is that they express the gene for CG
- The window of time in which corpus luteum rescue occurs is just before implantation
- None of the above

Which hormone is the most important in stimulating spermatogenesis ?
- testosterone
- follicle stimulating hormone
- estrogen
- progesterone

What critical processes occur with sperm before and during contact with the oocyte to facilitate fertilization?
- capacitation
- acrosome reaction on zona pellucida
- acrosome reaction in the vagina

When does chorionic/placental fusion first occur between marmoset co-twins.
- soon after implantation
- during fetal development
- after formation of the blood system

Marmoset female reproduction is most likely controlled by
- energy balance
- day length
- temperature
- health

The marmoset social system is
- a matriarchy
- a patriarchy
- cooperative in child care

What are the main advantages in using MHC typing for Genetic population management?

- the diversity and variablilty of the MHC antigens/alleles
- the immunological importance of the MHC antigens
- the quickness and simplicity of the method
- no answer is correct

Why is microsatellite typing a better method than MHC typing for parentage testing?

- easier to perform
- gives you information about biological important genes
- gives you information about variable parts of different chromosomes
- no answer is correct