

BioE100-2nd Midterm

1. (2 pts) Describe the difference between anthropocentrism and biocentrism. (30 words)

anthropocentrism - homo sapiens is supreme and can exploit other life forms for the benefit of the species homo sapiens. Or humans have rights over nature.
 biocentrism - Everything in nature has value (e.g. Buddhism)

2. (1 pt) I want to start riding my bike to campus. Let's assume the only risk involved is my getting hit by a car and that the probability of this happening is 0.01%. What else do I need to know to have done a complete probabilistic risk assessment?

The consequences of the risk or getting hit.

3. (1 pt) What is the main ethical argument against doing research using embryo stem cells? (one sentence)

rights of embryo.
 autonomy of embryo

4. (3 pts) What are three responsibilities of a journal editor?

1) Assure fair review. Peer evaluation
 2) Assure responsible authorship
 3) Timely review
 4) Act on issues of misconduct (e.g. plagiarism)

5. (1 pt) Use of material from the internet in writing essays can result in violation of copyright laws or in plagiarism (one word).

6. (2 pts) What is the difference between somatic and germline engineering? (20 words)

Somatic - modification of the genome of cells which are not involved in reproduction.

Germline - modification of the genome of ovum and sperm such that the genome of the zygote is modified.

7. (1 pt) What term describes the ethical problem with changing germline cells' DNA?

Intergenerational risk

8. (1 pt) The ethical principle/theory most violated by privacy invasion, deception, and hacking with respect to internet ethics is autonomy.

9. (2 pts) What is the difference between a vision statement and credo?

Vision gives goals and policy (sometimes).

Credo states what are the beliefs of the undersigned managers + employees regarding behavior and duties to stakeholders.

10. (1 pt) The concept which takes account of other cultures is relative ethics.

11. (2 pts) What is the Judeo-Christian approach to the environment?

The human species has dominion over other animals, plants and the environment.

12. (2 pts) What is inadvertent doping?

Taking a drug for health reasons but that drug is associated also with human performance enhancement. There was no intent to increase performance (e.g. ephedrin for nasal congestion on day of sports)

13. (2 pts) An athlete who is using an anabolic steroid uses the ethical principle of autonomy to bolster his argument, saying that "Not allowing the drug's use violates the autonomy of the individual athlete- he/she should be able to use any drug as they see fit." Explain the contradictory nature of his statement.

The autonomy of competitors is violated.

14. (2 pts) A sports committee is considering the approval of a performance-enhancing drug for a future competition. The drug has been known to have deleterious side effects. What ethical concept (excluding autonomy) clearly points at this gesture as being a bad decision? Why?

Nonmaleficence - approval of a drug whose use has a risk of harming

Duty - Benefit ^{others} athletes with minimum pain.

15. (1 pt) What stem cell therapy poses absolutely no ethical dilemmas?

autologous stem cell transplantation
adult stem cell therapy

16. (1 pt) (Taken from the Daily Cal ads section)

Egg Donor for Japanese couple: Asian woman, 21-30, high quality education. Prefer 5'3" or taller, 1500+ SAT or 150+ IQ. \$20,000 for selected candidate. Contact Mrs. XX at ...

What term can be used to describe the possible ethical violation of this advertisement?

undue inducement

17. (3 pts) List 3 benefits and 3 risks involved with genetic modification of plants.

Benefits

- 1) Better nutritional value
- 2) Reduction of need for pesticides
- 3) Increase food supply

Risks

- 1) Potential reduction of diversity
- 2) Potential health harm from modified foodstuff.
- 3) Monopoly on crops because of seed monopoly.

18. (4 pts) Consider the following dilemma:

Mr. and Mrs. X have tried many times to have a child without success. They hire surrogate Ms. Y to carry their in vitro fertilized embryo. However, instead of fertilizing one of Mrs. X's eggs with Mr. X's sperm, they decide to take the nucleus from one of Mr. X's skin cells, insert it into a four stage blastocyst derived from Mrs. X's egg, and implant it into Ms. Y's uterus. Thus, they will be effectively cloning Mr. X. During the pregnancy, Mr. X and Mrs. X get divorced. After the child is born, each person wants sole custody of the child. Mr. X claims the child should be his because it was 100% his DNA. Mrs. X claims the child should be hers because her egg was used. Ms. Y claims the child should be hers because it was her body that nourished the developing embryo. The US Attorney General's office steps in and say that none of the three should be given custody of the child because the act of cloning is morally wrong. You are an arbitrator settling the matter. Allocate custody of the child as you see fit. (100 words or less)

Grading criteria

Design process
+ 2 or +3 depending on

in alternative solution or dynamics section } Child's Autonomy + 1

in ambiguity section } Consent or agreement + 1
conditions of Mrs Y.

Over count of words - 1

* NOTE: Ask for advice is not required for this grading but it will be in the future!