

# BioE 100 Mid Term Exam

Name \_\_\_\_\_ Student ID \_\_\_\_\_

## **ETHICAL CONCEPTS: TRUE OR FALSE (Usually 20 T/F)**

1. \_\_\_\_\_. “Ethics” derives from the Greek word “ethos” meaning disposition or character.
2. \_\_\_\_\_. Copyright and patents are ways of protecting ideas from being plagiarized.
3. \_\_\_\_\_. The ordering of importance of prima facie duties depends on the situation.
4. \_\_\_\_\_. A stakeholder includes a company’s competitors.
5. \_\_\_\_\_. Telling a lie might be driven by beneficence, but is unethical according to Kantian duty.
6. \_\_\_\_\_. The development of the respirator helped ignite the Right to Die ethical controversy
7. \_\_\_\_\_. Advanced medical directives grant specific end of life decisions including right to die.
8. \_\_\_\_\_. An ethical argument can be derived from factual premises alone.
9. \_\_\_\_\_. Research misconduct includes honest error or differences of interpretation of valid data
10. \_\_\_\_\_. Listing an author not involved in the research because they are famous is ethically permissible.
11. \_\_\_\_\_. Slippery slope theory argues that a reasonable act might lead to a bad consequence.
12. \_\_\_\_\_. “Begging the Question” assumes that a critical point in a debate is “obviously” true when in fact it needs to be justified or reasoned.
13. \_\_\_\_\_. Ad Hominem is permissible during debate because it supports the moral argument.
14. \_\_\_\_\_. Utilitarian arguments are a defense for science and engineering research misconduct

## **ETHICAL THEORIES: MULTIPLE CHOICE (Usually 10 MC)**

**15. Which ethicist asserts “Ethics is not a matter of consequence but of duty.”**

- (a) Jeremy Bentham
- (b) Immanuel Kant
- (c) Peter Singer
- (d) None of the above

**16. Utilitarianism is the ethical theory that the morally right course of action in any situation is**

- (a) one of legal rules, backed by force of opinion and law, which is in everyone’s self interest.
- (b) to always treats other humans as “end in themselves” and not as “mere means”

- (c) to always consider all the stakeholders
- (d) the one that produces the greatest balance of benefits over harm for everyone affected

**17. To not cause reckless or careless harm**

- (a) non-maleficence
- (b) justice
- (c) autonomy
- (d) rights

**18. Moral calculus based on “desire”, “preferences”, “intention”, “understanding.”**

- (a) preference utilitarianism
- (b) hedonistic utilitarianism
- (c) rights ethics
- (d) none of the above

**19. Ethical dilemma between the private interests and the official responsibilities of a person in a position of trust**

- (a)
- (b) Research misconduct
- (c) Conflict of interest
- (d) none of the above

**20. Where non-comparable harms are involved, avoid harming the worse-off individual.**

- (a) The Miniride Principle
- (b) The Worse-off Principle
- (c) prima facie duty
- (d) double effect

**ETHICAL FRAMEWORKS: SHORT ANSWER OF NO MORE THAN 50 WORDS (Usually 5 short answers)**

**22. Name the 4A's and give one sentence definition for each component**

**23. How do ethical considerations for euthanasia differ for competent vs. incompetent patients?**

**24. Name one good reason to support and one good reason to oppose Academia and Industry Collaborations**

**25. Apply 4A's to address Conflicts of Interest**

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**26. Define "company credo" and explain its ethical importance**

**ETHICAL CASE STUDIES: (150 POINTS) (Usually 2-3 Case studies)**

**35. Research Conduct and Intellectual Property.** Dr. Roger Beachy is the founding president of the not-for-profit Danforth Plant Science Center (DPSC) in St. Louis MO. In collaboration with the Monsanto Company, his group led the development of a variety of tomato that was genetically modified for resistance to viral disease. His technique to produce virus resistance (VR) has been replicated by researchers around the world to a number of different plant virus diseases. His researcher team has collaborated with scientists from developing countries, using a unique policy on intellectual property that overcomes legal obstacles in order to share knowledge. Monsanto has contributed \$1 million of land and \$146 million startup money that made the DPSC possible, and Beachy serves as a paid consultant to Monsanto. Dr. Beachy frequently publishes research and policy positions supporting genetically engineered crops in high profile professional journals, but does not always disclose his ties to biotech companies. You serve on the DPSC IRB in which Dr. Beachy proposes an industry-academia collaboration with Monsanto involving two graduate students who will work on viral resistant sweet peas and chickpeas. Beachy proposes that Monsanto can hold an exclusive patent on the profitable VR sweet peas, while the same technique will be used to create a non-exclusive patent held by DPSC on less profitable VR chickpeas. **Define pros/cons of the Monsanto and DPSC collaboration. Then provide ethical guidelines on conflicts of interest, intellectual property, and use of graduate students.**

<b>Pros and Cons</b>
<b>Conflicts of Interest</b>
<b>Intellectual property</b>
<b>Graduate students</b>

