

Introduction to Ethics, Dual-use Research and Equipment of Concern Exam (Total – 20 pts)

Answer Sheet

1. What two practices has been effective in promoting bioethics?
 - a. Regulation and laws
 - b. Regulations and codes of conduct
 - c. Code of ethics and conduct
 - d. Code of conduct and standards

2. Match the definitions to the words (3 pts):

— DURC	a. Materials and technologies that can be used for both civil and military purpose.
— Bioethics	b. Research that, based on current understanding, can be reasonably anticipated to provide knowledge, products or technologies that could be directly misapplied by others to pose a threat to public health and safety, agricultural crops and other plants, animals, the environment, or material
— Dual use	c. The promotion of responsible and good research practices

3. The goal of professional codes of conduct is:
 - a. Aspirational
 - b. Educational/advisory
 - c. Enforceable

4. Give an example of DURC: _____

5. Give three examples of potential dual-use equipment at a vaccine manufacturing plant (3 pts):

6. T or F Each individual is responsible for their own behavior and has a responsibility to report or formally address ethical violations to management.
7. T or F The institution is not responsible for ensuring proper oversight and training to manage dual-use research of concern.
8. T or F The institution is required to address any ethical dilemmas brought to its attention by one of its researchers in a discrete and timely manner.

9. T or F National Science Advisory Board for Biosecurity proposed a framework for the Oversight of dual-use life sciences research.
10. T or F Ethical conduct does not apply to personal integrity or their institution.
11. DURC stands for _____.
12. _____ is an international treaty that went into effect in 1975. It bans the use of biological weapons and prohibits all development, production, acquisition, stockpiling or transfer of such weapons.
- a. Council of regulations (EC) number 428/2009 of May 2009
 - b. Biological and Toxin Weapons Convention (BWTC)
 - c. United Nations Security Council Resolution 1540
13. What lowers the risk when working with large scale production?
- a. High pressure
 - b. Large volume of live virus
 - c. Automatic transfers
 - d. Vaccine is available
14. Give one example for misuse of biological agents: _____
15. The only difference between a vaccine and a biological weapon is the _____ and the _____. (2pts)