

Part 2

## SCIENCE AND TECHNOLOGY

### I. KEY TERMS

*Supply a correct key term to each definition below.*

1. \_\_\_\_\_ the process of discovering, explaining, and predicting natural or social phenomena
2. \_\_\_\_\_ activities that apply the principles of science and mechanics to the solutions of a specific problem
3. \_\_\_\_\_ the use of tools to accomplish tasks previously done by hand (agricultural society)
4. \_\_\_\_\_ the replacement of human labor with machinery and equipment that are self-operating (industrial society)
5. \_\_\_\_\_ the use of machines to control other machines (postindustrial societies)
6. \_\_\_\_\_ innovative activities undertaken by corporations or governments in developing new services or products, or improving existing services or products
7. \_\_\_\_\_ an acronym for science, technology, engineering and mathematics
8. \_\_\_\_\_ the use of scientific principles and technology to solve social problems
9. \_\_\_\_\_ a worldview that questions the validity of rational thinking and the scientific enterprise
10. \_\_\_\_\_ a condition in which the material part of culture changes at a faster rate than the nonmaterial part
11. \_\_\_\_\_ the use of identifying characteristics such as hands, fingers, and eyes as technological data
12. \_\_\_\_\_ a sophisticated technology that allows life-sized participants in the virtual presence of one another to realistically communicate through broadcast quality sound and images
13. \_\_\_\_\_ any technology that carries information
14. \_\_\_\_\_ an international information infrastructure available through universities, research institutes, government agencies, libraries, and business
15. \_\_\_\_\_ a platform for millions of users to express themselves online in the common areas of cyberspace
16. \_\_\_\_\_ the buying and selling of goods and services over the Internet
17. \_\_\_\_\_ Internet sites where participation requires membership and members regularly communicate with one another for personal and/or professional reasons

18. \_\_\_\_\_ the use of genetic maps to detect predispositions to human traits or disease(s).
19. \_\_\_\_\_ the transplantation of a healthy gene to replace a defective or missing gene
20. \_\_\_\_\_ the manipulation of an organism's genes in such a way that the natural outcome is altered
21. \_\_\_\_\_ the union of an egg and a sperm in an artificial setting such as a laboratory dish
22. \_\_\_\_\_ the intentional termination of a pregnancy
23. \_\_\_\_\_ the procedure that may entail delivering the limbs and the torso of the fetus before it has expired
24. \_\_\_\_\_ use of stem cells to produce body cells that can be used to grow needed organs or tissues
25. \_\_\_\_\_ undifferentiated cells that can produce any type of cell in the human body
26. \_\_\_\_\_ a federal law that prohibits discrimination in health coverage or employment based on genetic information
27. \_\_\_\_\_ a practice in which a business subcontracts with a third party, often in low-wage countries such as China and India, for services
28. \_\_\_\_\_ a principle that holds that Internet users should be able to visit any website and access any content without Internet service provider interference
29. \_\_\_\_\_ diseases that result from the use of technological devices, products, and/or chemicals
30. \_\_\_\_\_ Illegally downloading or distributing copyrighted materials (e.g. music, games, software)
31. \_\_\_\_\_ a general term that includes any spyware, viruses, and adware that is installed on an owner's computer without their knowledge
32. \_\_\_\_\_ the use of electronic devices (e.g. websites, e-mail, instant messaging, text messaging) to send or post negative or hurtful messages or images about an individual or a group
33. \_\_\_\_\_ the state of confusion resulting from rapid scientific and technological changes that unravel our traditional values and beliefs
34. \_\_\_\_\_ laws that require that genetic information be handled separately from other medical information
35. \_\_\_\_\_ exclusive control over a particular gene as a result of government patents
36. \_\_\_\_\_ the tendency for technology to have both positive and negative consequences
37. \_\_\_\_\_ a movement about abortion that emphasizes the right of women to decide whether to terminate a pregnancy

38. \_\_\_\_\_ a movement about abortion that emphasizes the right of embryos or fetus to gestate to term and be born

## II. VOCABULARY

Match the words to the correct definitions. Write your answers in the boxes provided.

Words	Definitions
1. futuristic	A. a model or example that shows how something works or is produced
2. virtual reality	B. a science which involves developing and making extremely small but very powerful machines
3. cloning	C. a situation that seems strange because it involves two ideas or qualities that are very different
4. teleportation	D. a sudden increase in the amount or number of something
5. science fiction	E. all the genes in one type of living thing
6. embryo	F. an animal or human that has not yet been born, and has just begun to develop
7. foe	G. an enemy
8. penetration rates	H. an environment produced by a computer that looks and seems real to the person experiencing it
9. deficit	I. careful and thorough examination of someone or something
10. underscore	J. crossing the Atlantic Ocean
11. genome	K. harm or damage
12. proliferation	L. in telecommunication, it refers to the number of active users per 100 people within a specific population
13. defective	M. not broken, damaged, or spoiled, but whole
14. plaintiff	N. not made properly, or not working properly
15. detriment	O. of the highest quality or standard
16. paradigm	P. sex between people who are closely related in a family
17. paradox	Q. someone who brings a legal action against another person in a court of law
18. transatlantic	R. someone who does not like modern machines, such as computers, and would prefer to live without them
19. incest	S. someone who is sexually attracted to children
20. intact	T. stories about events in the future which are affected by imaginary developments in science, for example about travelling in time or to other planets with life on them
21. nanotechnology	U. the difference between the amount of something that you have and the higher amount that you need
22. scrutiny	V. the process of making an exact copy of a plant or animal by taking a cell from it and developing it artificially
23. surveillance	W. the process of sending a person or thing from one place to another in the form of energy or a copy, or to travel in this way
24. technophobe	X. to emphasize the fact that something is important or true
25. top-notch	Y. unusual and modern as if it belongs to the future instead of the present
26. pedophile	Z. when the police, army etc watch a person or place carefully because they may be connected with criminal activities

Write your answers here.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

### III. SHORT-ANSWER QUESTIONS

Based on your course readings, answer the following questions.

1. Explain the differences between *science* and *technology*. Raise some examples for each term.

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2. Is it good the more people have access to the *Internet*? List the pros and cons of the use of *Internet*.

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3. Describe FIVE factors that have led to the decline of U.S. supremacy in science and technology.

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4. Summarize *structural-functionalist perspective* on science and technology.

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5. Summarize *conflict perspective* on science and technology.

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6. Summarize *symbolic interactionist perspective* on science and technology.



9. Briefly summarize the consequences of science and technology.

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10. What will the future be like? And how can we keep technology under control?

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