

Spring 2025  
Introduction to Philosophy of Technology  
Quiz-1  
31<sup>st</sup> January, 2025

Time: 45 minutes

Marks: 15 (weighted to 10)

Answer any 3 of the following precisely and to the point (3 × 5; 100 - 200 words)

1. How has the meaning of the word ‘technology’ changed from the Greeks to the modern era? Describe the ideological and substantive changes which have brought about this shift in meaning according to Leo Marx?

How the meaning of the word ‘technology’ changed from the Greeks to the modern era (2 marks; 1 for each point)

- for the Greeks, *techne* meant art/craft/skill of producing and making and ‘technology’ referred to the **branch of learning, or discourse or treatise concerned with the mechanic arts** (it referred to a **field of study**).
  - In the modern era, however, the meaning of the word technology changed from being a field of study to being an **object of study**, referring to the **objects produced**.

Ideological and substantive changes leading to this shift

Ideological changes (1.5 marks) :

- Changes in the conception of progress—from referring to incremental advances in instruments and tools to referring to progress in society as a whole.
  - earlier, mechanical innovation was celebrated only as a means to achieving progress, but in the modern era mechanical innovation became equated with progress in humanity as a whole

Substantive changes (1.5 marks):

- there was a shift from discrete machines to sociotechnical systems such as the railroad, which involved various elements such as equipment, organization, technical knowledge, institutions, etc.

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2. What is *poiesis*? How do essence and existence relate in *poiesis*? How is *techne* related to *poiesis*?

What is *poiesis* (1 mark)

- *Poiesis* is the practical activity of making in which human beings engage when they produce something.

How essence and existence relate in *poiesis* (2 marks)

- In *poiesis*, essence precedes existence. The idea/essence of the thing to be made exists prior to the actual object.

How *techne* is related to *poiesis* (2 marks; 1 mark for each point)

- *Techne* signifies the knowledge or the discipline associated with a form of *poiesis*.

- In the Greek view of things each techne includes a purpose and a meaning for the artifacts the production of which it guides.
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**3. Briefly describe any 2 reasons why the concept of 'technology' is hazardous according to Leo Marx?**

**Why the concept of 'technology' is hazardous (look for any 2; 2.5 marks each)**

- the generality (lack of specificity) of the word makes it susceptible to reification. That is, of endowing a human activity with the characteristic of things. This conceals its fundamental nature as the relation between people.
  - By consigning technologies to the realm of things, there is a distraction of attention away from the human—socio-economic and political relations which determine who uses them and for what purposes.
  - The concept leads to a tendency towards technological determinism, whereby we invest a machine with the power to initiate change.
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**4. What does it mean to say that technology is deterministic? Why does belief in determinism require a free market, according to David Nye? Give any one example of how cultural choices have shaped technologies and their trajectory?**

**When we say that technology is deterministic, we mean to say that (2 marks; look for any two points):**

1. it is inevitable (a natural force)
2. it is beyond human control
3. it has a trajectory of its own
4. given a free market, certain technologies will inevitably be adopted by customers

**Why belief in determinism requires a free market, acc to Nye (2 marks)**

What many people have in mind when they say that a technology is determinist (e.g., that the television or the Internet was “inevitable”) boils down to an assumption that these technologies are so appealing that most consumers, given the chance, will buy them. Hence, determinism requires a free market for such choices to be exercised

**Any one example of cultural choices shaping technologies (use your discretion; here are some examples): 1 mark**

- Japan's rejection of the gun in favour of the sword
  - The Amish's rejection of cell phones, automobiles, and tractors for more self-sufficient technologies
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**5. Give any two arguments leveled against technological determinism by David Nye?**

**Look for any two arguments (2.5 marks each: 2 marks for argument; 0.5 marks for example); look mainly for arguments rather than examples.**

1. argument from how social and cultural choices determine technological choices  
e.g., Japan's rejection of the gun

**2. Argument from unintended consequences**

the actual usefulness of a technology is always unpredictable; for example computerization of the workplace and increase in efficiency and productivity

**3. Argument from cultural lag**

there is always a cultural lag between the introduction of a technology and its adoption. This suggests that no technology is inevitable.

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