

HS7.301 Science, Technology and Society

End-Semester Exam

Max Time: 3 hours

Max Marks: 75

- Answer **ANY FIVE** questions below in 700-800 words each.
- Each question is worth 15 marks.

1. What is the problem of replication in scientific research? How does this problem impact knowledge production and validation of theories?
2. Why is autonomy central to knowledge production in science? What are the various ways in which the autonomy of science and scientific institutions is challenged? Explain using examples.
3. How does Lewis Mumford study the historical trajectory of technology? What are the main phases he identifies, and what parameters does he use to differentiate one historical epoch from the other?
4. How do social constructivists attempt to understand the trajectory of technology? What is the methodology they use? Explain with the help of an example.
5. What do you understand by technological determinism? Explain with the help of examples.
6. What does Thomas Hughes mean by technological momentum? Explain with examples.
7. What does Langdon Winner mean when he says that technical arrangements are "forms of order"?
8. Is the internet a public sphere or a public space? Discuss.
9. What does Shoshana Zuboff mean by "behavioral surplus"? Why is this concept important to understanding issues of privacy and surveillance?
10. Why is it important to study the design of any technological product? What would you study in a technological product to understand its impact on society?