Spring 2025
Introduction to Philosophy of Technology
Mid-Semester Examination

27th February, 2025

Time: 1.5 hours
Marks: 30

Answer any 3 in about 400 - 500 words; keep your answers precise and to the point

3 × 10

1. Marx writes "*The application of machinery in the present day is one of the relations of our present economic system, but the way in which machinery is utilised is totally distinct from the machinery itself. Powder is powder whether used to wound a man or to dress his wounds.*"
   What is the underlying assumption regarding technology in this quotation? Explain this quotation by outlining the main elements of Marxist theory of historical materialism and the role of technology therein.

2. Briefly describe how (a) the Frankfurt school and (b) David Noble differ from Marx in their philosophies of technology? Which among these perspectives on technology (Marxism, Frankfurt school, David Noble, or either/neither of the above) do you find convincing. Provide reasons in support of your position.

3. Briefly describe the three phases into which industrial production has been divided since the Middle Ages by Marx and Engels? What do machines do to workers under capitalism? Bring out the difference in positions between Marx and the Luddites in terms of how this effect of machines on the workers may be remedied.

4. Briefly describe Alexander Koyre's conception of technology and its relationship to science. What is Layton's evaluation of this conception? Describe the central purpose of technology, according to Layton and the implications of viewing technology as a spectrum.

5. "*Basic research leads to new knowledge. It provides scientific capital. It creates the fund from which the practical applications of knowledge must be drawn. New products and new processes do not appear full-grown. They are founded on new principles and new conceptions, which in turn are painstakingly developed by research in the purest realms of science.*"
   Who is the source of this quote? Critically evaluate the above quotation on the basis of its implications for science–technology relationship as discussed by Layton.