

## UNDERGRADUATE PROGRAM IN PHILOSOPHY

### Paper No -14 :PHILOSOPHY OF SCIENCE

Marks 100

1. What is Philosophy of Science? : *Understanding Philosophy of Science*, by James L Ladyman, Routledge, London, 2002, pp 1-8.
2. Observation: "Observation" in *Patterns of Discovery*, by N. R. Hanson, Cambridge University Press, Cambridge, 1958, Chapter-1 pp 4-30.
3. Explanation: N. Harman "Inference to the Best Explanation", *Philosophical Review*, vol.74, pp 88-95.
4. The Problem of Induction: Hume (traditional problem): *An Enquiry Concerning Human Understanding*, section IV(parts I-II), also in *Epistemology: Contemporary Readings* ed. By Michael Huemer, Routledge, London, 2002, pp 298-306.
5. "The Problem of Induction", K. Popper, *Conjectures and Refutations*, Routledge and Kegan Paul, London, 4<sup>th</sup> edition,1972, pp 50-55, *The Logic of Scientific Discovery*,Routledge, London and New York, 2002, pp 3-9.
6. K. Popper, "The Problem of Demarcation", *Conjectures and Refutations*, pp 33-46, *The Logic of Scientific Discovery*, pp 10-20, *Falsificationism: The Logic of Scientific Discovery*, pp 57-74.
7. T. Kuhn: Paradigm Change and Scientific Progress, 'The Structure of Scientific Revolutions,' *International Encyclopedia of Unified Science*, vol. II, no. 2, University of Chicago Press, USA, 1962.
8. I. Lakatos: Scientific Research Programs: 'The Methodology of Scientific Research Programs', *Philosophical Papers*, vol. 1, ed. By John Worrall and Gregory Curie, Cambridge University Press, United Kingdom, 1978, pp 47-67.
9. P. Feyerabend: "How to Defend Society Against Science" in *Introduction to Philosophy*, ed. By John Parry and Michael Bratman, 3<sup>rd</sup> edition, Oxford University Press, 1999, pp 277-283.

#### Further Readings:

1. Hanson, N. R., *A Guide to Philosophy of Science*, George Allen & Unwin, London.1972
2. Hanson, N. R. *Patterns of Discovery*, Cambridge University press, Cambridge.1958
3. Hume, David, *Treatise of Human Nature*.
4. Popper, Karl, *The Logic of Scientific Enquiry*, Routledge, London and New York,2002.
5. Popper, Karl *Conjectures and Refutations*, Kegan and Paul, London.1963
6. Kuhn,T. *The Structure of Scientific Revolutions*, University of Chicago Press, 1962.
7. Lakatos, I., 'The Methodology of Scientific Research Programmes' in *Philosophical Papers*, vol. 1, Cambridge University Press, Cambridge,1978.
8. Smith, Peter G., *Theory and Reality*, The University of Chicago Press, Chicago, 2003.

9. Ladyman, James, *Understanding Philosophy of Science*, Routledge, London, 2002.
10. Dilworth, C., *Scientific Progress*, D. Reidel, London, 1981.
11. Swinburne, R. (ed.). *The Justification of Induction*, Oxford University Press, Oxford, 1974.
12. Nola, R. and Sankey, H. (eds.), *After Popper, Kuhn and Feyerabend* Kluwer Academic Publishers, London, 2000.