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63/1 (SEM-6) DSE3/PHLHE6036

2025

PHILOSOPHY

Paper : PHLHE6036

(Philosophy of Science)

Full Marks : 80

Pass Marks : 32

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer : ***(any six)***

1×6=6

(a) Among the following philosophers, who proposed a model of scientific change ?

(i) Thomas S. Kuhn

(ii) Karl Popper

(iii) Feyerabend

(iv) David Hume

(b) The author of the book *An Essay Concerning Human Understanding* is

(i) Hume

(ii) Descarte

(iii) Ryle

(iv) Hegel

(c) Name a book written by Thomas Kuhn.

(i) *Patterns of Discovery*

(ii) *The Structure of Scientific Revolutions*

(iii) *Observation, Discovery and Scientific change*

(iv) *The Logic of Scientific Discovery*

(d) "An induction represents a conjunction of past, present and future; however, it is not possible to deduce a logical conclusion from experience"—Who quoted the above statement?

(i) Berkeley

(ii) Wolf

(iii) D. Hume

(iv) Kant

- (e) N. R. Hanson was a philosopher of science from which nation (country) ?
- (i) German
 - (ii) America
 - (iii) British
 - (iv) Greek
- (f) Which of the following books is written by N. R. Hanson ?
- (i) *Patterns of Discovery*
 - (ii) *Against Method*
 - (iii) *The Structure of Scientific Revolutions*
 - (iv) *The Logic of Scientific Discovery*
- (g) Which of the following philosophers reject the classical inductivist views on the scientific method in favour of empirical falsification ?
- (i) Hume
 - (ii) Karl Popper
 - (iii) Bain
 - (iv) Aristotle

(h) What is the ground of matter of fact? 2.

(i) Reason

(ii) Belief

(iii) Faith

(iv) Experience

(i) *Conjectures and Refutations* by Karl Popper was first published in

(i) 1963

(ii) 1971

(iii) 1968

3.

(iv) 1958

(j) The author of the book *Against Method* is

(i) Feyerabend

(ii) Hume

(iii) Descartes

(iv) Aristotle

2. Answer the following questions briefly : (*any five*)
 $2 \times 5 = 10$

(a) Write the names of *any two* books written by David Hume.

(b) Define Scientific induction.

(c) Define Observation in philosophy.

(d) What is falsifiability?

(e) What are the *two* different types of theory of loudeness?

(f) Name *two* books written by Lakatos.

(g) What is science?

3. Answer *any six* of the following questions :
 $5 \times 6 = 30$

(a) How did Hume reject the concept of induction in his epistemology?

(b) Distinguish between "relations of ideas" and "matters of fact" according to Hume.

(c) Discuss Karl Popper's the "problem of demarcation".

(d) Explain Hume's theory of perception.

(e) Explain Kuhn's views on change and progress in science.

- (f) What is the difference between Lakatos and Kuhn?
- (g) What is the scientific method of falsification?
- (h) What are the characteristics of a conjecture? Discuss briefly.
- (i) What are different conditions of observation? Explain.
- (j) Distinguish between induction and deduction.

4. Answer **any two** of the following questions
 $10 \times 2 = 20$

- (a) What is the difference between observation and inference? Explain.
- (b) Discuss Harman's theory of "Inference to the Best Explanation."
- (c) What is Corroboration according to Popper? Discuss.
- (d) Why does Feyerabend want to defend society against science? Discuss.

5. Answer **any one** of the following questions :

14×1=14

- (a) What is the problem of induction in the philosophy of science? Give a critical account of Hume's response to this problem.
- (b) Explain change and rationality in science according to Kuhn.
- (c) Do you agree with Hanson that all observation is laden? Explain.
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