

MPYE-009 Philosophy of Science and Cosmology

Note:

i) Answer all five questions.

ii) All five questions carry equal marks.

iii) The answer of questions no. 1 and 2 should be in about 500 words.

1. What do you understand by the commonality and difference between scientific and philosophical methods. Discuss in detail. 20

Or

What is uncertainty principle? Discuss the philosophical implications of uncertainty principle. 20

2. Discuss and evaluate the idea of Paradigm Shift? 20

Or

Write a note on realistic and idealistic account of space and time. 20

3. Answer any **two** questions in about **250** words each. 2*10= 20

a) What is falsification? 10

b) What is cause-effect relationship? 10

c) What do you understand by observation? Discuss the limits of observation in Science. 10

d) How does Heisenberg relate the principle of Uncertainty to the principle of causality? 10

4. Answer any **four** questions in about **150** words each. 4*5= 20

a) Write a note on the contribution of Kepler to cosmology. 5

b) Highlight the main features of feminist account of science. 5

c) Compare Classical Mechanics with Quantum Mechanics. 5

d) Compare the idea of gravitation given by Newton and Einstein. 5

e) What are the postulates of special theory of relativity? 5

f) Critically evaluate the feminist account of science. 5

5. Write short notes on any **five** in about **100** words each. 5*4= 20

a) Dual Nature of a Particle	4
b) Idea of incommensurability	4
c) Decoherence	4
d) Hubble's Law	4
e) The inflationary Theory	4
f) Elimination of Metaphysics	4
g) Dark Matter	4
h) Epistemological Anarchism	4