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MPYE-009

M. A. PHILOSOPHY (MAPY)

Term-End Examination

June, 2023

**MPYE-009 : PHILOSOPHY OF SCIENCE AND
COSMOLOGY**

Time : 3 Hours

Maximum Marks : 100

Note : *Answer all the **five** questions. All questions carry equal marks. Answer to question nos. 1 and 2 should be in about **500** words each.*

1. Explain some of Hubble's important discoveries in cosmology. 20

Or

Discuss Indian cosmology and Puranic view of the world.

2. What is dark matter and dark energy ? Give their philosophical significance. 20

Or

Who was Galileo ? What was his opinion on Religion and Science ?

P. T. O.

3. Answer any *two* of the following in about **250** words each : 2×10=20
- (a) What is the significance of quantum tunneling ?
 - (b) Compare the religious and scientific perspectives on Truth.
 - (c) What is logical positivism ? How do you criticize their position ?
 - (d) Is the universe expanding ? How do you prove it ?
4. Answer any *four* of the following in about **150** words each : 4×5=20
- (a) Describe *one* important discovery of Johannes Kepler.
 - (b) What is the significance of Schrödinger's cat ?
 - (c) What is the law of gravitation according to Newton ?
 - (d) How does Laudan distinguish between empirical and conceptual problems in science ?
 - (e) Give a brief description General Theory of Relativity.
 - (f) "Observation cannot be separated from interpretation." Comment.

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5. Write short notes on any *five* of the following in about **100** words each : 5×4=20

- (a) *Incommensurability*
- (b) Hubble's Law
- (c) *Visvas (belief)*
- (d) Deductive Explanation
- (e) Scientific Research Program
- (f) Kuhn
- (g) *Aether*
- (h) Aesthetics