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**MPYE–009**

**M. A. PHILOSOPHY (MAPY)**

**Term-End Examination**

**December, 2023**

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

*Time : 3 Hours*

*Maximum Marks : 100*

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**Note :** (i) *Answer all the **five** questions.*

(ii) *All questions carry equal marks.*

(iii) *Answers to Question Nos. 1 and 2  
should be in about **500** words each.*

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1. What is the historical significance of Philosophy of Science ? Is philosophy of science a “Science Criticism” ? Discuss. 20

*Or*

How would you explain Scientific Research Programme in Lakatos’ scheme ? Bring out its significance in understanding science. 20

2. What is Philosophy of Science ? Explain the three broad areas of inquiry that philosophy of science deals with. 20

**P. T. O.**

*Or*

What are the various scientific theories proposed about the possible end of the universe ? Elaborate. 20

3. Answer any *two* of the following in about **250** words each :

(a) Explain general theory of relativity in detail. 10

(b) Bring out the contribution of Kepler to cosmology. 10

(c) Give some significant differences between classical and quantum mechanics. 10

(d) Discuss the relation between metaphysics and philosophy of science. 10

4. Answer any *four* of the following in about **150** words each :

(a) Is universe infinite or finite ? Comment. 5

(b) What was known as island universe ? 5

(c) What do you understand by 'theory-ladenness of observation' ? 5

(d) Describe Brahmanda or "cosmic egg". 5

(e) What is Arab contribution in science ? 5

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- (f) Write a note on Relativistic theory of space and time. 5
5. Write short notes on any *five* of the following in about **100** words each : 4
- (a) Reason and faith 4
  - (b) Scientific Antirealism 4
  - (c) Gravitational field 4
  - (d) Structure of scientific theory 4
  - (e) Verification theory 4
  - (f) World model 4
  - (g) Practical value of Quantum mechanics 4
  - (h) Historical origin of Uncertainty principle 4