

M.A. PHILOSOPHY (MAPY)

Term-End Examination

December, 2021

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

Time : 3 hours

Maximum Marks : 100

Note :

- (i) Answer all **five** questions.
(ii) All questions carry equal marks.
(iii) Answers to questions no. 1 and 2 should be in about 500 words each.

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1. What is Philosophy of Science ? How do you relate philosophy of science to other disciplines ? 20

OR

Explain Uncertainty Principle. Give a detailed account of its implication for cosmology. 20

2. Give a general understanding of quantum mechanics. How does it affect our understanding of the Universe ? 20

OR

Give a general understanding of the relationship between science and religion. 20

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

- (a) What is Kuhn's contribution to Philosophy of Science ? Explain. 10
- (b) Elucidate the Bayesian theory of probability. 10
- (c) Briefly describe the Big Bang model. 10
- (d) Write a detailed note on the Arab's contribution to cosmology and philosophy of science. 10

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

- (a) What is the Puranic view of cosmos ? 5
- (b) Explain the expanding universe. 5
- (c) What is the significance of verification theory ? 5
- (d) Is space and time infinite according to contemporary scientific theory ? 5

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

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|------------------------------|---|
| (a) Baryogenesis | 5 |
| (b) Inflationary Theory | 5 |
| (c) Incomensurability | 5 |
| (d) Steady State Theory | 5 |
| (e) Falsificationalism | 5 |
| (f) Teleological Explanation | 5 |
| (g) Doppler Shift | 5 |
| (h) Larry Laudan | 5 |
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