

M.A. PHILOSOPHY (MAPY)

Term-End Examination

December, 2016

**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 question no. 1 and 2 should be in about 500 words each.*

1. Discuss elaborately the big bang theory and give your philosophical reflections on it. 20

OR

What is uncertainty principle ? Discuss its philosophical implications. 20

2. Who are the logical positivists ? Give their interpretation of science. How do you respond to their criticism ? 20

OR

Critically discuss the Indian Cosmology. Give your philosophical appraisal of it in comparison to scientific cosmology. 20

3. Answer **any two** of the following in about **250** words each.
- (a) Describe the contribution of Galileo Galilei to science in general and cosmology in particular. 10
 - (b) What is "Theory Ladedness of observation"? Give your criticism of it. 10
 - (c) Discuss some of the challenges and difficulties of Copenhagen interpretation. 10
 - (d) Is the universe finite or infinite according to contemporary scientific theories ? Discuss. 10
4. Answer **any four** of the following in about **150** words each.
- (a) How do you relate reason to faith ? 5
 - (b) Mention some practical values of quantum mechanics. 5
 - (c) How does Larry Landen understand science ? 5
 - (d) What is cosmological principle ? 5
 - (e) What is the main contribution of Johannes Kepler to Astronomy ? 5
 - (f) How do you understand heat death theory of the end of the universe ? 5
5. Write short notes on **any five** of the following in about **100** words each.
- (a) Big Bounce 4
 - (b) Relativity of time 4
 - (c) Dark matter 4
 - (d) Scientific realism 4
 - (e) Carl Hampel 4
 - (f) Research Tradition 4
 - (g) Brahmanda 4
 - (h) General theory of relativity. 4