

### **Question 1. Cyclical Universes**

Which of the following cosmologies is intrinsically cyclical ?

- Chinese cosmology
- Hindu cosmology
- Aristoteleian cosmology
- Islamic cosmology

### **Question 2. Infinitely old Universe**

Which of the following mythologies/religions imply/implied an infinitely old Universe ?

- the Bible
- Mayan mythology
- the Rig Veda
- Jainite cosmology

### **Question 3. Gravity**

What is according to Einstein's theory of General Relativity, the nature of gravity ?

- the manifestation of the local curvature of space-time
- the instantaneous exchange of particles, gravitons
- the manifestation of entropy
- the effect of the cosmological constant

### **Question 4. Brahe & Kepler**

In which city did Tycho Brahe and Johannes Kepler meet and work together ?

- Prague
- Regensburg
- Göttingen
- Copenhagen

### **Question 5. Siderial month**

What is the Siderial month ?

- period between furthest distance (apogee) and closest distance (perigee) of the Moon to Earth
- period between the moon passing through the nodes of its orbit (crossing between plane of orbit Moon and Earth's orbit around the Sun)
- period between the moon reaching the same position wrt. the stars
- period between equinoxes

*cont'd next page*

**Question 6. Cepheids**

What are Cepheids ?

- exploding stars
- nearby dwarf galaxies
- a class of bright variable stars
- stars in the constellation Cepheus

**Question 7. Galaxy redshifts**

Who was the astronomer to first to measure the redshift of galaxies:

- Georges Lemaitre
- Vesto Slipher
- Edwin Hubble
- Immanuel Kant

**Question 8. Tycho Brahe**

What was the name of the observatory of Tycho Brahe on the island Hven ?

- Sterneborg
- Rondtorn
- Uraniborg
- Hven

**Question 9. Cosmological Principle I**

What does the cosmological principle state ? The universe is

- uniform, isotropic and homogeneous
- is uniformly expanding
- the laws of physics are the same everywhere
- has a flat geometry

**Question 10. Aristoteleian cosmology**

Aristotle suggested that the reason for anything coming about can be attributed to four different types of active causal factors. Which of the following is NOT one of these ?

- efficient cause
- original cause
- material cause
- formal cause

*cont'd next page*