

# space.fm

## Cosmology Quiz

1. The universe is..?

- a) Contracting
- b) Staying the same
- c) Expanding

2. When galaxies move away from us they exhibit Redshift. This is known as the..?

- a) Hubble Classification
- b) Doppler Principle
- c) Bourne Identity

3. True or False? Some galaxies in our local group are moving towards our galaxy, the Milky Way.

- a) True
- b) False

4. Red light has a..?

- a) Longer Wavelength than blue
- b) Shorter Wavelength than blue

5. Redshift in a spectrum shows..?

- a) An object moving away
- b) An object moving nearer
- c) A stationary object

6. Radial Velocity is how fast an object is travelling..?

- a) ...in the direction perpendicular to the observer
- b) ...in the direction of the line of sight
- c) ...in the central direction

7. Hubble's law is  $v = Hd$ . What does this mean?

- a) Velocity = Height x Distance
- b) Velocity = Hubble constant / Distance
- c) Velocity = Hubble constant x Distance

8. What does this symbol mean  $\lambda$ ?

- a) Wavelength
- b) Temperature
- c) Coat Stand

9. Cosmologists believe this is responsible for the majority of mass in a galaxy..?

- a) Dark energy
- b) Dark matter
- c) Neutrinos

10. Which of these is an argument NOT in favour of the big bang theory?

- a) The Universe continues to expand.
- b) Cosmic Microwave Radiation is thought to be leftover heat from the Big Bang.
- c) There does not seem to be enough mass in the Universe to account for its expansion.

11. Which of these are true about quasars?

- a) High redshift, emit radiation, older object
- b) Nearby Stars, emit radiation, newer object
- c) Crunchy, come in yellow coloured crisp packets, found in newsagents

12. Cosmologists believe this is the force responsible for moving galaxies away from each other..?

- a) Dark energy
- b) Dark matter
- c) Neutrinos

13. The cosmic background radiation is the temperature of space throughout the universe. Approximately, what is this temperature in Kelvin? (0 degrees Kelvin = -273 degrees Celsius)

- a) 0 K (-273 C)
- b) 1 K (-272 C)
- c) 3 K (-270 C)

14. The Hubble Deep Field is..?

- a) An image taken of a small area of space in multiple exposures over the course of days by the HST
- b) A method of measuring the velocity of galaxies
- c) A concave depression in a sports field landscaped by Hubble himself.

15. Which of these do cosmologists consider might happen to how the universe might end?

- a) Big Freeze
- b) Big Rip
- c) Big Crunch

## Answers

1. (c)
2. (b)
3. (a)
4. (a)
5. (a)
6. (b)
7. (c)
8. (a)
9. (b)
10. (c)
11. (a)
12. (a)
13. (c)
14. (a)
15. (a) (b) (c)