

COSMOLOGY QUIZ

1. Red light has a..?

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

2. The Universe is..?

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

3. What do cosmologists believe to be responsible for the majority of mass in a galaxy..?

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

4. Redshift in a spectrum shows..?

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

5. 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

6. 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.

7. 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

8. Cosmologists believe to be the force responsible for moving galaxies away from each other..?

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

9. 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

10. Quasars are?

- a) Part of an atom
- b) Quasi-stellar high-speed objects
- c) Curly cheese flavoured crisps

11. True or False? Some galaxies in our Local Group are moving towards our galaxy, the Milky Way.

- a) True
- b) False

12. What does this symbol mean λ ?

- a) Wavelength
- b) Temperature
- c) Coatstand

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

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

ANSWERS

1. (a)

2. (c)

3. (b)

4. (a)

5. (b)

6. (c)

7. (a)

8. (a)

9. (c)

10. (b)

11. (a)

12. (a)

13. (c)

14. (b)