

TEST #1 – section 2
Sep 21, 2015

1. How do we define life? If there was life elsewhere in the Universe, where would it make sense to look, and what kind of life could we hope to find?
2. Explain, in one sentence per term, what is: (i) Pluto; (ii) dark matter; (iii) open cluster; (iv) supernova; and (v) spectral emission lines.
3. What are the three hallmarks of science? What is the ideal, by-the-book progression of the scientific method? What are some of the dangers that can plague science?
4. How did the geocentric system model finally fall? What were the most important observations and advancements that led us to adopt the heliocentric model?
5. The nebular theory can explain the orderly motion of planets around the Sun and of moons around the planets. How is that?
6. If the Sun lost 15% of its mass (such episodes are quite typical as stars deplete hydrogen in their cores), at what distance from the Sun would Earth need to be so that the force of gravity were unchanged?