

A2141 - In-class pop quiz#1

1. What are the techniques for finding extra-solar exoplanets?

- A) Planetary transit across the star.
- B) Doppler blue/red shift due to radial velocity.
- C) Gravitational microlensing
- D) All of the above.

2. What parameters can one infer from Transit and Doppler data?

- A) Planet's size and mass.
- B) Chemical composition of planetary atmosphere.
- C) Presence of Alien life.
- D) None of the above.

3. The term Zodiac refers to

- A) A band of constellations around the ecliptic
- B) All constellations named after animals
- C) A nickname for a New York serial killer
- D) A group of constellations the Sun is never in
- E) The constellation used to find Polaris

PQ1 –Contd.

4. **The half-life of radioactive potassium-40 is 1.25 billion years. A rock sample has only 1/8 of the potassium-40 that it started with. How old is the rock?**
- A) 3.75 billion years.
 - B) 2.5 billion years.
 - C) 1.25 billion years.
 - D) 10 billion years.
 - E) 5 billion years.
5. **Approximately how far is the nearest star Alpha Centauri triple-star?**
- A) 10 AU
 - B) 1 LY
 - C) 4 LY
 - D) 100 LY
 - E) Unknown