

The Solar system and other worlds.

1. Mercury's atmosphere is likely to be thin or non-existent due to its
 - a) small mass
 - b) slow rotation
 - c) high surface temperature
 - d) high density
 - e) both a) and c)

2. Jupiter's chemical composition is closest to that of
 - a) The sun
 - b) Earth
 - c) Mars
 - d) the moon
 - e) Venus

3. Uranus is unusual because
 - a) its radius is so large
 - b) its orbit is highly eccentric
 - c) its orbit is highly inclined
 - d) its axis of rotation is in the ecliptic plane
 - e) it is the only gas giant without rings

4. The location of the Oort cloud is
 - a) near Pluto's orbit
 - b) between the orbits of Mars and Jupiter
 - c) between $1/6$ and $1/2$ the distance to the nearest star from the sun
 - d) close to the nearest star from the sun
 - e) we have no idea because we have never seen it

5. What is the typical size of material that causing the shooting stars in a meteor shower?
- a) A few mm
 - b) About 10 cm
 - c) about a metre
 - d) about 100 metres
 - e) about a km
6. Which of these techniques for detecting extra-solar planets is biased *towards* find objects at large distances from their star?
- a) Radial velocities
 - b) transits
 - c) direct imaging
 - d) None of the above - they are all biased towards close-in planets
 - e) None of the above - none have any selection bias.
7. Which of the following is NOT a requirement for an IAU planetary designation?
- a) An object must have cleared its lane of other material
 - b) An object must be spherical
 - c) An object must be orbiting the Sun
 - d) An object must have natural satellites
 - e) An object must not be the satellite of an object other than the sun