

NAME: _____ DATE: _____

Homework #5

1. The Earth's core is hot primarily due to
 - (a) solar Heating
 - (b) large Scale Meteor Bombardment
 - (c) heat left over from the Earth's formation
 - (d) All of the above

2. Particles from the Sun interact with the Earth's magnetic field to produce
 - (a) the Aurora Borealis
 - (b) dangerous UV radiation
 - (c) Hydrogen and Helium
 - (d) Protons and Electrons

3. The Earth is thought to have formed from
 - (a) the collapse of a single gas cloud
 - (b) a disk of gas orbiting the Sun
 - (c) accretion of small rock-like bodies
 - (d) gas ejected from the Sun in a massive solar flare

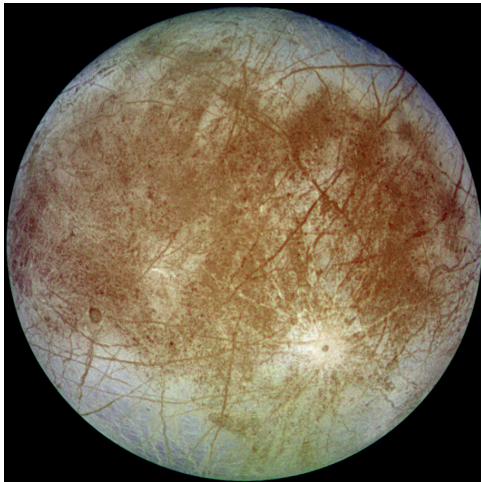
4. The Moon
 - (a) always points the same face toward the Sun
 - (b) does not rotate
 - (c) rotates on its axis with the same period as its revolution about the Earth
 - (d) rotates at the same rate as the Earth – once per day.

5. Jupiter's chemical composition is closest to that of
 - (a) the Sun
 - (b) Earth
 - (c) Mars
 - (d) Venus

6. Io's volcanic activity is driven mostly by heat from
 - (a) radioactivity
 - (b) the Jupiter-Io tidal force
 - (c) Jupiter's magnetic fields
 - (d) the solar wind

7. The Jovian planets have retained most of their atmospheres because
 - (a) they are further from the Sun's gravitational pull than terrestrial planets
 - (b) they are very warm and massive
 - (c) they are very cold and massive
 - (d) the planet's rings help to hold in their atmospheres

8. The tail of a comet is generally directed
- (a) toward the Sun because of the Sun's gravitational force
 - (b) away from the Sun because of the solar wind and radiation pressure
 - (c) opposite the direction of motion as the comet passes through interplanetary matter
 - (d) along the comet's magnetic field lines
9. Which planet in our solar system has the most moons?
- (a) Mars
 - (b) Saturn
 - (c) Uranus
 - (d) Jupiter
10. Which part of a comet is solid?
- (a) halo
 - (b) nucleus
 - (c) coma
 - (d) gas tail
11. If the moon Io traveled on more circular orbit about Jupiter than it does now, would the volcanic activity on Io increase or decrease? Explain your answer.
12. Identify the name of the object shown in the figure below. What is the surface of this object made of?



13. Why are there fewer craters on the Mare than on the Highlands on the Moon?

14. Explain what Saturn's rings are made of.

15. How is it that the moon Titan, which is small and has a weaker gravitational field than our own moon, is able to hold a significant atmosphere?