Sample Questions for Exam #2
one question from each of the six thematic categories

LIGHT & SPECTRA
1. If two objects have the same distance from the Sun, which one would be colder?
   A. the object with the highest reflectivity (“albedo”)
   B. the object with the lowest reflectivity (“albedo”)
   C. the object with the most moons
   D. the object with the oldest surface
   E. the object with the strongest magnetic field

TELESCOPES & OBSERVATORIES
2. How many times more light would be collected by a 10-meter diameter telescope in a 1 hour exposure than with a 1-meter telescope in a 1 minute exposure?
   A. 10
   B. 60
   C. 100
   D. 600
   E. 6000

TERRESTRIAL PLANETS
3. A natural “Greenhouse Effect” exists on Earth. Therefore,
   A. the atmosphere causes the surface to be cooler than expected.
   B. the atmosphere contains molecules that absorb IR light, such as CO₂ & H₂O.
   C. the magnetic field prevents gases from escaping.
   D. tides from the Moon heat the atmospheres.
   E. all of the above

JOVIAN PLANETS
4. Which statement below concerning a comparison between the jovian and terrestrial planets is most CORRECT?
   A. The Jovian planets are mostly gaseous or liquid throughout.
   B. The Jovian planets have lower densities.
   C. The Jovian planets have more hydrogen.
   D. The Jovian planets rotate "differentially."
   E. all of the above

MOONS & RINGS
5. Very few moons in the Solar System have an atmosphere because
   A. they have low masses.
   B. they have a strong greenhouse effect.
   C. their high temperatures allowed most gases to escape.
   D. the tidal forces from the planets they orbit pulled the atmospheres away.
   E. all of the above
COMETS & ASTEROIDS
6. Objects as small as one kilometer in size can cause a global catastrophe because
   A. they are traveling at high speeds.
   B. their masses are large enough to survive passage through Earth’s atmosphere.
   C. they carry high kinetic energies.
   D. they could impact with energies equivalent to megatons of TNT.
   E. all of the above

ANSWERS on next PAGE.
ANSWERS:
1. A
2. E
3. B
4. E
5. A
6. E