

## PTY5/ASTR 206 – Section 3 – In-Class Activity 3 – Assigned 4/7/09

NAME: \_\_\_\_\_ (PRINT CLEARLY)

**We're going to go over four of the questions on mid-term #2 that most people got wrong. Circle the right answer.**

10. The impact crater record on Venus is unusual because...

- a) Venus is the only planet with no craters at all
- b) The age of the surface seems larger than the age of the solar system
- c) All the impact craters were erased half a billion years ago
- d) Only craters smaller than a few kilometers in size can be found
- e) No new craters have formed for 3.5 billion years

**28% of the class got this right**

16. Mars has the largest volcanoes in the solar system. Olympus Mons is over 20km high; nothing on the Earth (volcanic or otherwise) even comes close to this. The main reason Mars can have such high mountains is...

- a) Due to its weaker gravity which lowers the weight of the mountain
- b) Due to its colder temperature which strengthens its surface rocks
- c) Due to its thinner atmosphere, so the pressure on the mountains is less
- d) Due to its different rock composition which happens to be stronger than Earth's
- e) All of the above

**7% of the class got this right – ouch!**

20. Methane has been discovered recently in the martian atmosphere which prompted some people to wonder if currently-living things on Mars produced it. What are the alternative explanations?

- a) Methane can be delivered to Mars by impacts of comets
- b) This methane may have formed billions of years ago so it doesn't mean life exists today
- c) The active volcanoes on Mars pump out methane
- d) Methane is trapped in the polar ice which melts and releases it to the atmosphere
- e) Alteration of rocks deep underground by warm water can release methane

**27% of the class got this right**

25. Continents currently cover less than one third of the surface of the Earth. The area of this continental crust is...

- a) Shrinking with time
- b) Expanding with time
- c) Holding steady for the past few billion years
- d) Can go up or down depending on the situation
- e) It depends on sea-level

**29% of the class got this right**