

The Universe – Saturn, Lord of the Rings

- 1) What do we call the shape that Saturn takes, due to its rapid rotation ?

- 2) According to the video, how many named moons orbit Saturn ?

- 3) What substance, commonly found on Earth, is Saturn the only planet in the solar system less dense than ?

- 4) What is the approximate thickness of Saturn's rings ?

- 5) What are the rings comprised of ?

- 6) At what speed do the rings move around Saturn ?

- 7) Who first noted Saturn's rings in 1610 ?

- 8) How many regions do we divide Saturn's rings into today ?

9) What causes erosion in Saturn's rings ?

10) How do the “shepherd” moons help to keep Saturn's rings intact ?

11) What is the source of the name “Saturn” ?

12) What speed do winds in Saturn's atmosphere reach ?

13) What do we call the region in Saturn's southern hemisphere that is home to numerous storms ?

14) Where is the Saturnian storm with the characteristics of an Earthly hurricane located ?

15) What geometric figure is found in Saturn's northern hemisphere, first observed by Voyager 2 ?

16) How deep does this “polar vortex” extend into Saturn's atmosphere ?

17) What planet is Titan the same size as ?

18) What can be found for hundreds of miles in Titan's equatorial region ?

19) What does Titan have that no other moon in the solar system has ?

20) How thick is Titan's atmosphere ?

21) What 2 elements or compounds are the primary components of Titan's atmosphere ?

22) What is produced by the components of Titan's atmosphere when stimulated by simulated sunlight in the laboratory ?

23) What is the temperature on Titan's surface ?

24) What compound forms the rains, coastlines, and rivers of Titan ?

25) What is the size of Enceladus ?

26) How high do geysers on Enceladus launch water vapor during eruptions ?

27) How is the interior of Enceladus heated ?

28) Which ring of Saturn is apparently powered by Enceladus' geysers ?

29) What interest guides our search for water in the solar system ?

30) What kind of life might be found on Enceladus ?

31) How many trips will the Cassini spacecraft have made around Saturn by 2008 ?

32) What instruments, other than a camera, are carried by the Cassini spacecraft ?