

## TOEFL Junior : Reading Comprehension Test 13

Read the passage . 60 - 100 minutes

Questions 29-40

The largest of the giant gas planets, Jupiter, with a volume 1,300 times greater than Earth's, contains more than twice the mass of all the other planets combined. It is thought to be a gaseous and fluid planet without solid surfaces. Had it been somewhat more massive, Jupiter might have attained internal temperatures as high as the ignition point for nuclear reactions, and it would have flamed as a star in its own right. Jupiter and the other giant planets are of a low-density type quite distinct from the terrestrial planets: they are composed predominantly of such substances as hydrogen, helium, ammonia, and methane, unlike terrestrial planets. Much of Jupiter's interior might be in the form of liquid, metallic hydrogen. Normally, hydrogen is a gas, but under pressures of millions of kilograms per square centimeter, which exist in the deep interior of Jupiter, the hydrogen atoms might lock together to form a liquid with the properties of a metal. Some scientists believe that the innermost core of Jupiter might be rocky, or metallic like the core of Earth.

Jupiter rotates very fast, once every 9.8 hours. As a result, its clouds, which are composed largely of frozen and liquid ammonia, have been whipped into alternating dark and bright bands that circle the planet at different speeds in different latitudes. Jupiter's puzzling Great Red Spot changes size as it hovers in the Southern Hemisphere. Scientists speculate it might be a gigantic hurricane, which because of its large size (the Earth could easily fit inside it), lasts for hundreds of years.

Jupiter gives off twice as much heat as it receives from the Sun. Perhaps this is primeval heat or heat generated by the continued gravitational contraction of the planet. Another characteristic of Jupiter is its sixteen natural satellites, which, like a miniature model of the Solar System, decrease in density with distance—from rocky moons close to Jupiter to icy moons farther away. If Jupiter were about 70 times more massive, it would have become a star. Jupiter is the best-preserved sample of the early solar nebula, and with its satellites, might contain the most important clues about the origin of the Solar System.

INSTRUCTION:

Read the questions carefully and refer to the text above then choose the best answer:

29. The word “attained” in line 4 is closest in meaning to ....

- (A) attempted
- (B) changed
- (C) lost
- (D) reached

30. The word “flamed” in line 5 is closest in meaning to ....

- (A) burned
- (B) divided
- (C) fallen
- (D) grown

31. The word “they” in line 6 refers to ....

- (A) nuclear reactions
- (B) giant planets
- (C) terrestrial
- (D) substances

32. According to the passage, hydrogen can become a metallic-like liquid when it is ....

- (A) extremely hot
- (B) combined with helium
- (C) similar atmospheres
- (D) metallic cores

33. According to the passage, some scientists believe Jupiter and Earth are similar in that they both have

- (A) solid surfaces
- (B) similar masses
- (C) similar atmospheres
- (D) metallic cores

34. The clouds surrounding Jupiter are mostly composed of ....

- (A) ammonia
- (B) helium
- (C) hydrogen
- (D) methane

35. It can be inferred from the passage that the appearance of alternating bands circling Jupiter is caused by ....
- (A) the Great Red Spot
  - (B) heat from the Sun
  - (C) the planet's fast rotation
  - (D) Storms from the planet's Southern Hemisphere
36. The author uses the word "puzzling" in line 15 to suggest that the Great Red Spot is ....
- (A) the only spot of its kind
  - (B) not well understood
  - (C) among the largest of such spots
  - (D) a problem for the planet's continued existence
37. Paragraph 3 supports which of the following conclusions?
- (A) Jupiter gives off twice as much heat as the Sun.
  - (B) Jupiter has a weaker gravitational force than the other planets.
  - (C) Scientists believe that Jupiter was once a star.
  - (D) Scientists might learn about the beginning of the Solar System by Studying Jupiter.
38. Why does the author mention primeval heat (lines 19-20) ?
- (A) To provide evidence that Jupiter is older than the Sun
  - (B) To provide evidence that Jupiter is older than the other planets
  - (C) To suggest a possible explanation for the number of satellites that Jupiter has
  - (D) To suggest a possible source of the quantity of heat that Jupiter gives off
39. According to the passage, Jupiter's most distant moon is ....
- (A) the least dense
  - (B) the largest
  - (C) warm on the surface
  - (D) very rocky on the surface
40. Which of the following statements is supported by the passage?
- (A) If Jupiter had fewer satellites, it would be easier for scientists to study the planet itself.
  - (B) If Jupiter had had more mass, it would have developed internal nuclear reactions.
  - (C) If Jupiter had been smaller, it would have become a terrestrial planet.
  - (D) if Jupiter were larger, it would give off much less heat



Copyright © 2016 by eTOC-surely work-All Rights Reserved



Copyright © 2016 by eTOC-surely work-All Rights Reserved

イトックのレッスン以外で使用禁止・法律で罰せられま  
す。

イトックのレッスン以外で使用禁止・法律で罰せられます

## Answers Key

- 29 A
- 30 B
- 31 C
- 32 D
- 33 A
- 34 C
- 35 B
- 36 D
- 37 D
- 38 A
- 39 B
- 40 C