

Quiz 7 Review. The Jovian Rings and Moons

1. Which planet has the most massive and bright ring system? _____
2. T or F. The largest gap (division) in the rings of Saturn is caused by an orbital resonance with Mimas.
3. T or F. Titan has a more opaque and thick (deep) atmosphere than Earth.
4. The faint planet whose position was predicted by two astrophysicists before it was found was _____
(a) Saturn (b) Uranus (c) Neptune (d) Mars (e) Ceres
5. The brightest parts of planetary ring systems are found within the planet's _____
(a) Roche limit (b) innermost moon's orbit (c) auroras (d) atmospheric haze
(e) belts and zones
6. T or F The majority of the Moons in the mnemonic MET DR THIP are tidally interlocked with Saturn.
7. T or F All but the "IP" in the Moons of the mnemonic MET DR THIP have coplanar orbits (within 2 degrees).
8. Which Moon is like a two-toned walnut?
(a) Mimas (b) Tethys (c) Ganymede (d) Iapetus (e) belts and zones
9. A good time to find new moons around Saturn is during a _____ - _____ crossing every 15 years.
10. Which big moon of Saturn has long been the most promising as a home for life? _____
11. Which moon of Jupiter is the most promising as a home for life? _____
12. Which phenomenon has NOT yet been observed amongst the moons of Saturn?
(a) vulcanism supplying ring particles (b) moons residing in Lagrangian points
(c) two moon's trading orbits (d) small moons shepherding ring particles
(e) medium-size moons colliding periodically
13. Although it is not the most dense moon around Jupiter, _____ is the largest of the Galilean satellites.
(a) Callisto (b) Io (c) Ganymede (d) Europa (e) Adrastea
14. This moon may have more liquid water than the Earth.
(a) Callisto (b) Io (c) Ganymede (d) Europa (e) Adrastea

15. The moon Daphnis was found by Cassini in a feature called the _____.
(a) Cassini's Division (b) G-ring (c) F-ring (d) Keeler gap (e) D ring
16. The moon with chaotic dynamics was called _____.
(a) Rhea (b) Hyperion (c) Iapetus (d) Telesto (e) Titan
17. Which Saturnian ring feature appears "braided" or "ropey" and is accompanied by Pandora and Prometheus?
(a) Cassini's Division (b) the G-ring (c) the F-ring
(d) the E-ring (e) the Encke gap
18. Triton's orbit is unusual because it is backward, or _____, and will spiral in toward Neptune.
19. The dark streaks on the moon _____ are thought to be caused by Nitrogen geysers.
20. Three rings around Neptune are named after the _____ of Neptune.
21. T or F. Neptune has no dynamically regular moons.
22. What does the "P" stand for in MET DR THIP?
23. What does the "H" stand for in MET DR THIP?