

Q12 Select from the key the statement in which we have the greatest confidence about the interior of Uranus.

KEY for Q12

- A The core of Uranus is no longer undergoing a process of differentiation and has cooled down.
- B The core of Uranus must contain iron, Fe, in order to account for its magnetic field.
- C All the rocky material in Uranus is contained in a small core.
- D Uranus contains a higher proportion of heavy elements (heavier than He) than do Jupiter or Saturn.
- E The core of Uranus has a solid surface.
- F The magnetic field of Uranus cannot originate in the icy layers because ice is not a good electrical conductor.

Pencil across *one* cell in row 12.

Q13 In Figure 7.9 of Book 2, H_2O clouds are shown forming at around 250 K on Saturn. Firstly, would these clouds be composed of ice or water particles, and secondly, what would be the maximum fraction of H_2O in the gas just above these clouds? Pencil across *one* of the cells A–C and *one* of the cells D–H. Take the pressure of Saturn's atmosphere at 250 K as 5 bar.

KEY for Q13

- A Water
- B Ice
- C The clouds would not exist because the partial pressure of H_2O is too low.
- D 10^{-3}
- E 5×10^{-3}
- F 2×10^{-4}
- G 0.2
- H 1

Pencil across *two* cells in row 13.