

NEET STRUCTURE OF ATOM — ATOMIC SPECTRA AND HYDROGEN SPECTRUM — PYQS

Max. Marks: 16

Questions: 4

Section A (MCQ) — 4 questions

Q.1 The ratio of the wavelengths of the light absorbed by a Hydrogen atom when it undergoes $n=2 \rightarrow n=3$ and $n=4 \rightarrow n=6$ transitions, respectively, is [NEET (UG) 2025]

- (1) $\frac{1}{9}$ (2) $\frac{1}{4}$ (3) $\frac{1}{36}$ (4) $\frac{1}{16}$

Scan or tap for the full solution



Q.2 Given below are two statements:
Statement-I: The Balmer spectral line for H atom with lowest energy is located at $\frac{5}{36}R_H \text{ cm}^{-1}$.

(R_H = Rydberg constant)

Statement-II: When the temperature of blackbody increases, the maxima of the curve (intensity and wavelength) shifts to shorter wavelength.

In the light of the above statements, choose the correct answer from the options given below:

[RE-NEET (UG) 2024]

- (1) Statement-I is true but Statement-II is false
 (2) Statement-I is false but Statement-II is true
 (3) Both Statement-I and Statement-II are true
 (4) Both Statement-I and Statement-II are false

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Q.3 Which of the following series of transitions in the spectrum of hydrogen atom falls in visible region?

[NEET (UG) 2019]

- (1) Paschen series (2) Brackett series
 (3) Lyman series (4) Balmer series

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Q.4 According to the Bohr theory, which of the following transitions in the hydrogen atom will give rise to the least energetic photon ?

[AIPMT 2011 (Mains)]

- (1) $n=6$ to $n=1$ (2) $n=5$ to $n=4$
 (3) $n=6$ to $n=5$ (4) $n=5$ to $n=3$

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3	4										
Ans.	2	3	4	3										