

## Worksheet: Atoms

Maharashtra State Board · Class 12 · Physics · 5 questions · 11 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 11

**Q1.** Find the energy needed to excite a hydrogen atom from  $n = 1$  to  $n = 3$ . [2 marks]

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**Q2.** Calculate the ionisation energy of hydrogen in eV and J. [2 marks]

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**Q3.** Why did only a few alpha particles bounce back in Rutherford's experiment? [2 marks]

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**Q4.** Find the wavelength of the photon emitted in the  $n = 4$  to  $n = 2$  transition in hydrogen. [3 marks]

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**Q5.** Find the angular momentum of an electron in the third Bohr orbit. [2 marks]

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