

PART 1 - PHYSICS

Topic : Atoms

SECTION-A : (Maximum Marks : 4)

This section contains **ONE** question.

Each question has **FOUR** options (A), (B), (C) and (D). **ONLY ONE** of these four options is the correct answer.

For each question, choose the option corresponding to the correct answer.

Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If **ONLY** the correct option is chosen;

Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered);

Negative Marks : -1 In all other cases.

1. A metal target with atomic number $Z = 46$ is bombarded with a high energy electron beam. The emission of X-rays from the target is analyzed. The ratio r of the wavelengths of the K_{α} -line and the cut-off is found to be $r = 2$. If the same electron beam bombards another metal target with $Z = 41$, the value of r will be [JEE Advanced 2024 Paper 2]
- (A) 2.53 (B) 1.27 (C) 2.24 (D) 1.58

Scan or tap for the
full solution



Space for Rough Work

JEE ADVANCED ATOMS — X-RAYS: CONTINUOUS AND CHARACTERISTIC, MOSELEY'S LAW (JEE) — PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

SECTION-A

[illegible]