

PART 1 - CHEMISTRY

Topic : Chemical kinetics

SECTION-1 : (Maximum Marks : 4)

- This section contains **ONE** question.
- The answer to each question is a **NON-NEGATIVE INTEGER**.
- For each question, enter the correct integer corresponding to the answer in the place designated to enter the answer.
- Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If ONLY the correct answer is entered;

Zero Marks : 0 In all other cases.

1. A sample initially contains only U-238 isotope of uranium. With time, some of the U-238 radioactively decays into Pb-206 while the rest of it remains undisintegrated.

When the age of the sample is $P \times 10^8$ years, the ratio of mass of Pb-206 to that of U-238 in the sample is found to be 7. The value of P is _____.

[Given: Half-life of U-238 is 4.5×10^9 years; $\log_e 2 = 0.693$]

[JEE Advanced 2024 Paper 2]

Scan or tap for the
full solution



Space for Rough Work

Test Pattern : **JEE (Advanced)**

SECTION-1

[illegible]