

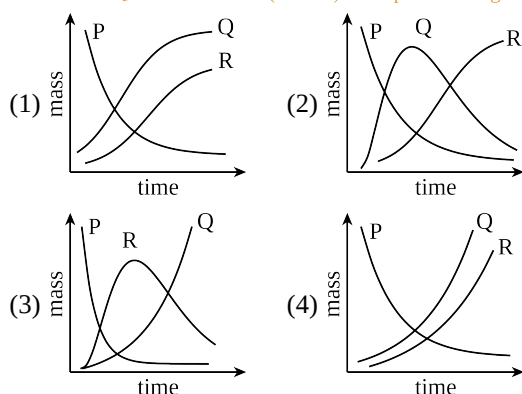
JEE MAIN NUCLEI — RADIOACTIVITY: LAW OF RADIOACTIVE DECAY, HALF-LIFE AND MEAN LIFE — PYQS

Max. Marks: 8
Questions: 2

Section A (MCQ) — 2 questions

- Q.1** A radioactive material P first decays into Q and then Q decays to non-radioactive material R. Which of the following figure represents time dependent mass of P, Q and R ?

[JEE Main 2025 (Online) 4th April Evening Shift]



Scan or tap for the full solution



- Q.2** A radioactive nucleus n_2 has 3 times the decay constant as compared to the decay constant of another radioactive nucleus n_1 . If initial number of both nuclei are the same, what is the ratio of number of nuclei of n_2 to the number of nuclei of n_1 , after one half-life of n_1 ?

[JEE Main 2025 (Online) 23rd January Morning Shift]

- (1) $1/4$ (2) $1/8$ (3) 4 (4) 8

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ANSWER KEY

Ques.	1	2									
Ans.	2	1									