

Physics ECAT Pre Engineering Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	When a nucleus emits an alpha particle, its atomic mass decreases by	A. 2 B. 1 C. 4 D. 3
2	Which of the following material has longer half life	A. radium B. polonium C. radium D. uranium
3	Three quarks make:	A. An electron B. A meson C. A baryon D. A photon E. None of these
4	Marie Curie and Pierre Curie discovered two new radioactive elements, which are called	A. polonium uranium B. uranium and radium C. polonium and radium D. none of these
5	The amount of energy equivalent to 1 a.m.u is	A. 9.315 Mev B. 93.15 Mev C. 931.5 Mev D. 2.22 Mev
6	Curie is a unit of	A. reluctance B. resistivity C. binding energy D. radioactivity
7	The half life of radium-226 is	A. 238 years B. 4.5×10^{16} years C. 1620 years D. 332 years
8	Rutherford performed an experiment on nuclear reactions in:	A. 1718 A.D. B. 1818 A.D. C. 1918 A.D. D. 2001 A.D. E. 1701 A.D.
9	Mass of proton is of order of	A. 10^{-31} gm B. 10^{-27} kg C. 10^{-24} gm D. 10^{+27} kg
10	A mass spectrograph sorts out	A. molecules B. atoms C. elements D. isotopes
11	Rate of decay is actually described by.	A. Half life B. Decay constant C. Mean life D. Total life E. None of these
12	Phenomenon of radioactivity is due to disintegration of	A. nucleus B. neutron C. proton D. molecule
13	Referring to the above figure, we can say that of all the elements, the most stable element is	A. Phosphorus B. Iron C. uranium D. Lithium E. Bismuth
14	When certain nucleus emits $\alpha\beta$ -particles, its mass number:	A. Remains same B. Increases by one C. Decreases by one D. Decreases by four E. None of these

15	For an atom having atomic number Z and atomic weight A, the charge on the nucleus is	A. A - Z B. A + Z C. Z D. A
16	The chemical properties of an element depends upon the number of	A. electron B. position C. photons D. neutrons
17	The distance travelled by a-particle in a medium before coming to rest, is called	A. range of >α-particle B. range of neutrons C. range of particle D. none of these
18	A curie represents a very strong source of	A. >α-particle B. >β-particle C. >γ-particle D. none of these
19	The nucleus of uranium -235 differs from a nucleus of a uranium -238 in that the latter contains	A. 3 more neutrons B. 3 more electrons C. 3 more protons D. 3 more ions
20	Proton was discovered by Rutherford in	A. 1915 B. 1906 C. 1910 D. 1920
