

ECAT Pre General Science Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	The distance travelled by α -particle in a medium before coming to rest, is called	A. range of γ -particle B. range of neutrons C. range of particle D. none of these
2	Gamma rays consist of steam of	A. electron B. proton C. photons D. all of these
3	When a nucleus emits an alpha particle, its atomic mass decreased by	A. 2 B. 1 C. 4 D. 3
4	Alpha particles are	A. hydrogen nuclei B. helium nuclei C. electrons D. photons
5	Nucleon means:	A. Only electrons B. Only neutrons C. Only protons D. Both (A) and (C) E. Both (B) and (C)
6	When a radioactive nucleus emits an α -particle, the proton-neutron ratio	A. decrease B. increase C. same D. none of these
7	1 amu is equal to.	A. 1.66×10^{-24} kg B. 1.66×10^{-19} kg C. 1.66×10^{-24} kg D. 1.66×10^{-27} kg
8	The unit of decay constant is	A. sex B. sec^{-2} C. sec^{-1} D. sec^{-2}
9	The half life of uranium-238 is	A. 6.2×10^9 years B. 4.5×10^9 days C. 4.5×10^9 years D. 1.3×10^6 years
10	In radioactive decay, the new element which is formed due to the disintegration of original element is called	A. element B. daughter element C. parent element D. none of these
11	Radioactivity is	A. self disruptive activity B. spontaneous activity C. exhibited by all elements under proper conditions D. both 'a' and 'b'
12	The most abundant isotope of neon is	A. neon-20 B. neon-21 C. neon-22 D. neon-23
13	The number of all the protons and neutrons in a nucleus is known as	A. atomic number B. mass number C. charge number D. none of these
14	If a nucleus emits an alpha particle, its mass number decreases by 4 while charge number decreased by	A. -4 B. 4 C. 2 D. 1

15	The half life of radium-226 is	A. 238 years B. 4.5×10^9 days C. 1620 years D. 332 years
16	The chemical properties of all the isotopes of an elements are	A. same B. different C. slightly different D. none of these
17	The nucleus/nuclei of hydrogen is/are:	A. Proton B. Deuteron C. Triton D. All of these E. None of these
18	In his experiment on nuclear reactions, Rutherford bombarded particles on:	A. Nitrogen B. Hydrogen C. Lead D. Oxygen E. Krypton
19	Which of the following material has longer half life	A. radium B. polonium C. radium D. uranium
20	U-238 present in the natural uranium is about:	A. 59% B. 0.007% C. 99% D. 39% E. 19%