

ECAT Pre General Science Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	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
2	When certain nucleus emits an α particle, its mass number:	A. Increases by one B. Decreases by one C. Remain same D. Decreases by four E. None of these
3	Which of the following material has smaller half life	A. uranium B. polonium C. radium D. radon
4	The number of neutrons in the nucleus of ${}_{92}\text{U}^{235}$ are	A. Infinite B. 92 C. 235 D. 143
5	The nucleus left after the emission of some radiation is called:	A. Parent nucleus B. Daughter nucleus C. Mother nucleus D. Any of these E. None of these
6	During the nuclear changes, the law/s of conservation that hold/s are that of:	A. Charge B. energy C. Momentum D. Mass E. All of these
7	Different radioactive material have	A. same half lives B. different half lives C. same mean lives D. same total lives
8	Nuclei that have the same mass number but different atomic number are called	A. isotones B. isomers C. isotopes D. isobars
9	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.
10	Heavy water is made of one oxygen atom and two atoms of:	A. Protium B. Deuterium C. Tritium D. Any of these E. None of these
11	When thorium nucleus emits an α -particle, the daughter nucleus is called:	A. Protactinium B. Actinium C. Uranium D. Radium E. Radon
12	Which of the following material has longer half life	A. radium B. polonium C. radium D. uranium
13	Mass of proton is	A. 1.67×10^{-27} kg B. 1.67×10^{-31} kg C. 1.66×10^{-34} kg D. 1.67×10^{-17} kg
14	Nucleon means:	A. Only electrons B. Only neutrons C. Only protons D. Both (B) and (C)

		D. Both (A) and (C) E. Both (B) and (C)
15	Nucleus consists of	A. proton and neutron B. protons and electron C. electron and neutron D. protons only
16	Alfa particles are	A. hydrogen nuclei B. helium nuclei C. electrons D. photons
17	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
18	When a charged particle passes through matter, it produces ionization, this effect is used in	A. fission reaction B. reactor C. radiation detector D. fusion reaction
19	When a nucleus emits an alpha particles, its charge number decreases by	A. 3 B. 2 C. 6 D. 5
20	How much time, the α -particle more massive than an electron	A. 600 B. 7000 C. 5000 D. 15000