

ECAT Pre General Science Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	Which of the following material has smaller has life	A. uranium B. polonium C. radium D. radian
2	In his experiment on nuclear reactions, Rutherford bombarded particles on:	A. Nitrogen B. Hydrogen C. Lead D. Oxygen E. Krypton
3	The most abundant isotope of neon is	A. neon-20 B. neon-21 C. neon-22 D. neon-23
4	The number of isotopes of hydrogen are	A. 2 B. 1 C. 3 D. 4
5	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
6	Radioactivity	A. is exhibited more by semiconductors in general B. in exhibited more by the element when they are coupled C. with other radioactive elements by a covalent bond D. is an atomic property of radioactive elements
7	Phenomenon of radioactivity is due to disintegration of	A. nucleus B. neutron C. proton D. molecule
8	γ -rays are	A. electrostatic waves B. electromagnetic waves C. heavy particles D. longitudinal waves
9	The distance travelled by α -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
10	Neon gas have three isotopes whose atomic numbers are	A. 20, 24 , 23 B. 20, 21 , 22 C. 20, 19 , 21 D. none of these
11	Nucleus of a hydrogen atom may contain:	A. One neutron only B. Two protons and one neutron C. Two protons and two neutrons D. Any of above E. One proton only
12	A particle having the mass of electron and charge of a proton is called a	A. photon B. positron C. antiproton D. antineutrino
13	The mass of the nucleus is always less than the total man of the protons and neutron that make up the nucleus. The difference of the two masses is called	A. nuclear fission B. nuclear fusion C. man defect D. radioactivity
		A. fission reaction

14	When a charged particle passes through matter, it produces ionization, this effect is used in	B. reactor C. radiation detector D. fusion reaction
15	Examples of moderators used in a fission reactor is/are:	A. Water B. Heavy water C. Carbon D. Hydrocarbon E. All of these
16	A mass difference of 0.0012 u is equivalent to and energy of:	A. 0.5 Me V B. 1.13 MeV C. 5.13 MeV D. 1.13 keV E. 1.13 eV
17	When radioactive nucleus emits α -particle, the proton-neutron ratio	A. decrease B. increase C. same D. none of these
18	The half life of radioactive substances depends upon	A. amount of substance B. energy of substance C. state of substance D. temperature of substance
19	Radioactivity was discovered by	A. Rutherford B. Henri Becquereal C. Maxwell D. James Chadwick
20	Rate of decay is actually described by.	A. Half line B. Decay constant C. Mean life D. Total life E. None of these