

Physics ECAT Pre Engineering Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	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
2	Alfa , beta and gamma rays are emitted from a radio-active substance	A. spontaneously B. when it is heated C. when it is exposed to light D. When it interacts with the other particle
3	β -particles are easily deflected by collisions than heavy	A. α -particles B. β -particles C. γ -particles D. none of these
4	When a nucleus emits an alpha particles, its charge number decreases by	A. 3 B. 2 C. 6 D. 5
5	When a nucleus emits an alpha particle, it atomic mass decreased by	A. 2 B. 1 C. 4 D. 3
6	The chemical behaviour of an atom is determined by	A. binding energy B. atomic number C. mass number D. number of isotopes
7	Binding energy per nucleus is	A. greater for heavy nucleus B. least for heavy nucleus C. greatest for light nuclei D. decreases for medium weight niclei
8	Phenomenon of radioactivity is due to disintegration of	A. nucleus B. neutron C. proton D. molecule
9	A particle having the mass of electron and charge of a proton is called a	A. photon B. positron C. antiproton D. antineutrino
10	Mass of proton is of order of	A. 10^{-31} gm B. 10^{-27} kg C. 10^{-24} gm D. 10^{+27} kg
11	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
12	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
13	Nucleus consists of	A. proton and neutron B. protons and electron C. electron and neutron D. protons only

14	Which of the following material has longer half life	A. radium B. polonium C. radium D. uranium
15	Beta particles are	A. hydrogen nuclei B. helium nuclei C. electrons D. photons
16	A pair of quark and antiquark makes a:	A. Meson B. Baryon C. Proton D. Neutron E. None of these
17	Radioactivity is	A. self disruptive activity B. spontaneous activity C. exhibited by all elements under proper conditions D. both 'a' and 'b'
18	Nucleus of a hydrogen atom may contain:	A. One neutron only B. Two protons and one neutron C. Two protons and two neutrons D. Aany of above E. One proton only
19	After alpha decay the atomic number of the atom	A. increase by four B. decreases by two C. increases by two D. decrease by four
20	Radium was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. Rutherford E. Both (B) and (C)