

Physics ECAT Pre Engineering Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	Neutrons are	A. positive charge B. negatively charged C. massless D. neutral
2	The emission of radiations take place in elements, having charge number greater than	A. 109 B. 82 C. 69 D. 52
3	How many isotopes of helium are present?	A. 1 B. 2 C. 3 D. 4
4	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
5	Examples of moderators used in a fission reactor is/are:	A. Water B. Heavy water C. Carbon D. Hydrocarbon E. All of these
6	Structure of the nucleus was explained by	A. J.J Thomson B. Bohr C. Millikan D. Rutherford
7	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
8	The energy acquired by a mass of 1g moving with the speed of light is	A. 3×10^{8} J B. 9×10^{13} J C. 3×10^{13} J D. 9×10^{16} J
9	Hydrogen atom with only one proton in its nucleus, and one electron in its orbit is called	A. deuteron B. detarium C. protium D. tritium
10	The chemical properties of an element depends upon the number of	A. electron B. position C. photons D. neutrons
11	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
12	Referring to the above figure, the binding energy per nucleon increases upto mass number equal to:	A. 50 B. 100 C. 150 D. 200 E. 250
13	The isotope/s of hydrogen is /are:	A. Protium B. Deuterium C. Tritium D. Both (A) and (B) E. All of these
14	Nucleus consists of	A. proton and neutron B. protons and electron C. electron and neutron D. protons only

15	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
16	Alfa particles are	A. hydrogen nuclei B. helium nuclei C. electrons D. photons
17	Curie is a unit of	A. reluctance B. resistivity C. binding energy D. radioactivity
18	Charge on neutron is	A. 1.6×10^{-19} C B. zero C. -1.6×10^{-19} C D. 1.2×10^{-19} C
19	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.
20	When certain nucleus emits an alpha particle, its mass number:	A. Increases by one B. Decreases by one C. Remain same D. Decreases by four E. None of these