

Physics ECAT Pre Engineering Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	The nucleus/nuclei of hydrogen is/are:	A. Proton B. Deuteron C. Triton D. All of these E. None of these
2	A mass spectrograph sort out	A. molecules B. atoms C. elements D. isotopes
3	Radioactivity was discovered by	A. Rutherford B. Henri Becquereal C. Maxwell D. James Chadwick
4	Which of the following material has smaller has life	A. uranium B. polonium C. radium D. radian
5	The half life of radioactive substances depends upon	A. amount of substance B. energy of substance C. state of substance D. temperature of substance
6	The half lie of radium-226 is	A. 238 years B. 4.5×10^9 days C. 1620 years D. 332 years
7	A pair of quark and antiquark makes a:	A. Meson B. Baryon C. Proton D. Neutron E. None of these
8	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
9	The chemical properties of all the isotopes of an elements are	A. same B. different C. slightly different D. none of these
10	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
11	Marie curie and Pierre curie discovered:	A. Uranium B. Polonium C. Radium D. Both (A) and (C) E. Plutonium
12	The total charge of any nucleus is given as	A. $Z e^{2+}$ B. $Z e^{2-}$ C. Z/e D. Ze
13	The nuclei of an element having the same charge number but different mass numbers are called:	A. Isobars B. Isotopes C. Isomers D. Isobaric E. Isothermal
14	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

15	Different radioactive material have	<p>A. same half lives B. different half lives C. same mean lives D. same total lives</p>
16	The number if neutrons in the nucleus of ${}_{92}\text{U}^{235}$ are	<p>A. Infinite B. 92 C. 235 D. 143</p>
17	Hydrogen atom with only one proton and one neutron in its nucleus, and one electron, is called	<p>A. deuterium B. protium C. tritium D. none of these</p>
18	Examples of moderators used in a fission reactor is/are:	<p>A. Water B. Heavy water C. Carbon D. Hydrocarbon E. All of these</p>
19	The distance travelled by α -particle in a medium before coming to rest, is called	<p>A. range of γ-particle B. range of neutrons C. range of particle D. none of these</p>
20	γ -rays behave like a particle because they explain the	<p>A. Compton effect B. Photoelectric effect C. Pair-production D. all the above</p>