

## 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	Charge on neutron is	A. 1.6 x 10 <sup>-19</sup> C B. zero C1.6 x 10 <sup>-19</sup> C D. 1.2 x 10 <sup>-19</sup> C
3	β-particles are easily deflected by collisions than heavy	A. <span style="color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">\alpha-particles</span> B. <span style="color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">\beta-particles</span> C. <span style="color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">\gamma-particles</span> D. none of these
4	Radioactivity was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. All of them E. None of these
5	Hydrogen atom with only one proton in its nucleus, and one electron in its orbit is called	A. deuteron B. deterium C. protium D. tritium
6	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
7	The nucleous of uranium -235 differs from a nucleous of a uranium -238 in that the later contains	A. 3 more neutrons B. 3 more electrons C. 3 more protons D. 3 more ions
8	Maric Curie and Pieree Curie discovered two new radioactive elements, which are called	A. polonium uranium B. uranium and radium C. polonium and radium D. none of these
9	Mass of proton is of order of	A. 10 <sup>-31</sup> gm B. 10 <sup>-27</sup> kg C. 10 <sup>-24</sup> gm D. 10 <sup>+27</sup> kg
10	There is present in paraffin a large amount of:	A. Nitrogen B. Hydrogen C. Carbon D. Baryllium E. Lithium
11	The nucleus/nuclei of hydrogen is/are:	A. Proton B. Deuteron C. Triton D. All of these E. None of these
12	The unit of decay constant is	A. sex B. sec <sup>2</sup> C. sec <sup>-1</sup> D. sec <sup>-2</sup>
13	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
		A. amount of substance

14	The half life of radioactive substances depends upon	B. energy of substance C. state of substance D. temperature of substance
15	Fraction of the decaying atoms per unit time is called	A. decay atom B. decay element C. decay constant D. decay
16	The reciprocal of decay constant $\boldsymbol{\lambda}$ of a radioactive material is:	A. Frequency B. Half life C. Year D. Mean life E. None of these
17	A particle having the mass of electron and charge of a proton is called a	A. photon B. position C. antiproton D. antineutrino
18	The amount of energy equivalent to 1 a.m.u is	A. 9.315 Mev B. 93.15 Mev C. 931.5 Mev D. 2.22 Mev
19	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
20	According to Rutherford atomic model, the positive charge in an atom	A. is concentrated at its centre B. is in the form of positive electron at same distance from its centre C. is spread uniformly through its volume D. none of these