

## ECAT Pre General Science Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	The unit of decay constant is:	A. Second B. Metre C. Hour D. Year E. Second <sup>-1</sup>
2	A curie represents a very strong source of	A. $\alpha$ -particle B. $\beta$ -particle C. $\gamma$ -particle D. none of these
3	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
4	In radioactive decay, the new element which is formed due to the disintegration of original element is called	A. element B. daughter element C. parent element D. none of these
5	The number of protons inside a nucleus is called	A. mass number B. atomic weight C. atomic number D. none of these
6	The chemical behaviour of an atom is determined by	A. binding energy B. atomic number C. mass number D. number of isotopes
7	Radium was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. Rutherford E. Both (B) and (C)
8	The range of particle depends upon the factor	A. charge, mass and energy of particle B. density of medium C. ionization potential of the atoms D. all the above
9	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
10	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.
11	Beta particles are	A. hydrogen nuclei B. helium nuclei C. electrons D. photons
12	When certain nucleus emits $\alpha$ -particles, its mass number:	A. Remain same B. Increases by one C. Decreases by one D. Decreases by four E. None of these
13	1 amu is equal to.	A. $1.66 \times 10^{-24}$ kg B. $1.66 \times 10^{-19}$ kg C. $1.66 \times 10^{-27}$ kg D. $1.66 \times 10^{-26}$ kg

		C. $1.66 \times 10^{-24}$ kg D. $1.66 \times 10^{-27}$ kg
14	Electrons are	A. positive charged B. negatively charged C. massless D. neutral
15	The chemical properties of an element depends upon the number of	A. electron B. position C. photons D. neutrons
16	Radioactivity was discovered by	A. Rutherford B. Henri Becquerel C. Maxwell D. James Chadwick
17	The chemical properties of all the isotopes of an elements are	A. same B. different C. slightly different D. none of these
18	Curie is a unit of	A. reluctance B. resistivity C. binding energy D. radioactivity
19	Hydrogen atom with only one proton in its nucleus, and one electron in its orbit is called	A. deuteron B. deuterium C. protium D. tritium
20	For Protium, the mass defect is:	A. Infinite B. Zero C. Very large D. A few grams E. None of these