

## ECAT Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	A pair of quark and antiquark makes a:	A. Meson B. Baryon C. Proton D. Neutron E. None of these
2	Radioactivity is	A. self disruptive activity B. spontaneous activity C. exhibited by all elements under proper conditions D. both 'a' and 'b'
3	The distance travelled by $\alpha$ -particle in a medium before coming to rest, is called	A. range of $\alpha$ -particle B. range of neutrons C. range of particle D. none of these
4	The emission of radiations take place in elements, having charge number greater than	A. 109 B. 82 C. 69 D. 52
5	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
6	The number of protons inside a nucleus is called	A. mass number B. atomic weight C. atomic number D. none of these
7	The chemical properties of all the isotopes of an elements are	A. same B. different C. slightly different D. 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	When thorium nucleus emits $\alpha$ -particle, the daughter nucleus is called:	A. Protactinium B. Actinium C. Uranium D. Radium E. Redon
10	Mass of neutron is	A. $1.67 \times 10^{-31}$ kg B. $1.67 \times 10^{-27}$ kg C. $9.1 \times 10^{-31}$ kg D. $1.67 \times 10^{-19}$ kg
11	When certain nucleus emits $\alpha$ -particles, is mass number:	A. Remain same B. Increases by one C. Decreases by one D. Decreases by four E. None of these
12	Beta particles are	A. hydrogen nuclei B. helium nuclei C. electrons D. photons
13	For an atom having atomic number 'Z' and atomic weight 'A', the number of neutrons in the nucleus is	A. A - Z B. A C. Z D. A + Z
14	In radio-active decav. the original element which disintegrate to another element is called	A. element B. daughter element

		C. parent element D. none of these
15	$\gamma$ -rays are	A. electrostatic waves B. electromagnetic waves C. heavy particles D. longitudinal waves
16	In wilson cloud chamber, the air becomes saturated with:	A. Alcohol vapours B. Water C. Helium gas D. Nitrogen gas E. None of these
17	Neon gas have three isotopes whose atomic numbers are	A. 20, 24 , 23 B. 20, 21 , 22 C. 20, 19 , 21 D. none of these
18	An alpha particle has a charge of	A. +2e B. -2e C. -e D. +3e
19	The nucleus/nuclei of hydrogen is/are:	A. Proton B. Deuteron C. Triton D. All of these E. None of these
20	Marie curie and Pierre curie discovered:	A. Uranium B. Polonium C. Radium D. Both (A) and (C) E. Plutonium