

## ECAT Pre General Science Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	Which of the following material has smaller has life	A. uranium B. polonium C. radium D. radian
2	The chemical behaviour of an atom is determined by	A. binding energy B. atomic number C. mass number D. number of isotopes
3	The reciprocal of decay constant $\lambda$ of a radioactive material is:	A. Frequency B. Half life C. Year D. Mean life E. None of these
4	The most abundant isotope of neon is	A. neon-20 B. neon-21 C. neon-22 D. neon-23
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	Marie curie and Pierre curie discovered:	A. Uranium B. Polonium C. Radium D. Both (A) and (C) E. Plutonium
7	Nuclei that have the same charge number but different mass number are called	A. isotones B. isomers C. isotopes D. isobars
8	Mass of proton is	A. $1.67 \times 10^{-27} \text{ kg}$ B. $1.67 \times 10^{-31} \text{ kg}$ C. $1.66 \times 10^{-34} \text{ kg}$ D. $1.67 \times 10^{-17} \text{ kg}$
9	In radio-active decay, the original element which disintegrate to another element is called	A. element B. daughter element C. parent element D. none of these
10	Radioactivity	A. is exhibited more by semiconductors in general B. in exhibited more by the element when they are coupled C. with other radioactive elements by a covalent bond D. is an atomic property of radioactive elements
11	For an atom having atomic number Z and atomic weight A, the number of electron in an atoms	A. A - Z B. A + Z C. Z D. A
12	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
13	The number of isotopes of hydrogen are	A. 2 B. 1 C. 3 D. 4

14	Different radioactive material have	A. same half lives B. different half lives C. same mean lives D. same total lives
15	Gamma rays consist of stream of	A. electron B. proton C. photons D. all of these
16	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
17	The nucleus of uranium -235 differs from a nucleus of a uranium -238 in that the latter contains	A. 3 more neutrons B. 3 more electrons C. 3 more protons D. 3 more ions
18	If a nucleus emits an alpha particle, its mass number decreases by 4 while charge number decreases by	A. -4 B. 4 C. 2 D. 1
19	Radiation detectors are used to	A. measure intensity of radiation B. measure energy of radiation C. difference between different types of radiation D. all the above
20	Curie is a unit of	A. reluctance B. resistivity C. binding energy D. radioactivity