

## ECAT Pre General Science Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	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
2	The emission of radiations take place in elements, having charge number greater than	A. 109 B. 82 C. 69 D. 52
3	Which are not the elementary particles?	A. Photons B. Leptons C. Hadrons D. Quarks 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	The diameter of an atom is of the order	A. $10^{-125}$ m B. $10^{-11}$ m C. $10^{-10}$ m D. $10^{-9}$ m
6	The counter, which also provides the power to the G.M. tube is called:	A. Thin mica window B. thin glass window C. Airy window D. Wooden window E. None of these
7	Neutron was discovered in	A. 1915 B. 1920 C. 1925 D. 1932
8	The half life of radioactive substances depends upon	A. amount of substance B. energy of substance C. state of substance D. temperature of substance
9	Rate of decay is actually described by.	A. Half line B. Decay constant C. Mean life D. Total life E. None of these
10	U-238 present in the natural uranium is about:	A. 59% B. 0.007% C. 99% D. 39% E. 19%
11	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
12	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
13	There is present in paraffin a large amount of:	A. Nitrogen B. Hydrogen C. Carbon D. Beryllium E. Lithium
14		A. Frequency B. Half life C. V

14	The reciprocal of decay constant $\lambda$ of a radioactive material is:	C. Year D. Mean life E. None of these
15	If a nucleus emits an alpha particle, its mass number decreases by 4 while charge number decreased by	A. -4 B. 4 C. 2 D. 1
16	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
17	Nucleon means:	A. Only electrons B. Only neutrons C. Only protons D. Both (A ) and (C) E. Both (B) and (C)
18	Radium was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. Rutherford E. Both (B) and (C)
19	The total charge of any nucleus is given as	A. $Ze^{2}$ B. $Z^{2}e$ C. $Z/e$ D. $Ze$
20	The range of $\beta$ -particle in air is greater than that of $\alpha$ -particle by	A. 1000 times B. 100 times C. 15 times D. 10 times