ECAT Pre General Science Physics Chapter 21 Nuclear Physics Online Test

Sr	Questions	Answers Choice
1	The figure 1.007276μ shows the mass of an:	A. Atom B. Positron C. Electron D. Neutron E. Proton
2	Nucleon means:	A. Only electrons B. Only neutrons C. Only protons D. Both (A) and (C) E. Both (B) and (C)
3	Neutron was disvovered by:	A. Rutherford in 1920 B. Chadwick in 1922 C. Bohr in 1913 D. Compton in 1927 E. None of these
4	Neutron was suggested to be in the nucleus by:	A. Rutherford in 1920 B. Bohar in 1913 C. Dirac in 1928 D. Anderson in 1932 E. None of these
5	Which of these is not a radiation detector	A. Wilson cloud chamber B. cyclotron acceleration C. Geiger Miller counter D. solid state detector
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	Radiation detector are used to	A. measure intensity of radiation B. measure energy of radiation C. difference between different types of radiation D. all the above
8	Pair production take place when energy ofγ-rays photon is	A. equal to 1.02 Mev- B. greater than 1.02 Mev C. less than 1.02 Mev D. none of these
9	γ-rays behave like a particle because they explain the	A. Compton effect B. Photoelectric effect C. Pair-production D. all the above
10	γ-rays are	A. electrostatic waves B. electromagnetic waves C. heavy particles D. longitudinal waves
11	The penetration power ofβ-particle is	A. zero B. less thanα-particle C. equal toα-particle D. greater thanα-particle
12	The range ofβ-particle in air is greater than that ofα-particle by	A. 1000 times B. 100 times C. 15 times D. 10 times
		A. <span style="color: rgb(34, 34,

13	β-particles are easily deflected by collisions than heavy	34); font-family: arial, sans-serif; font-size: small;">α-particles B. β-particles C. γ-particles D. none of these
14	How much time, theα-particle more massive than an electron	A. 600 B. 7000 C. 5000 D. 15000
15	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
16	The distance travelled byα-particle in a medium before coming to rest, is called	A. range ofγ-particle B. range of neutrons C. range of particle D. none of these
17	Which of the following material has smaller has life	A. uranium B. polonium C. radium D. radian
18	Which of the following material has longer half life	A. radium B. polonium C. radium D. uranium
19	The half life of uranium-238 is	A. 6.2 x 10⁹years B. 4.5 x 10⁹days C. 4.5 x 10⁹years D. 1.3 x 10⁶years
20	The half lie of radium-226 is	A. 238 years B. 4.5 x 10⁹days C. 1620 years D. 332 years
21	The unit of decay constant is	A. sex B. sec² C. sec⁻¹ D. sec⁻²
22	Fraction of the decaying atoms per unit time is called	A. decay atom B. decay element C. decay constant D. decay
23	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
24	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
25	The emission of radiations take place in elements, having charge number greater than	A. 109 B. 82 C. 69 D. 52
26	The time required for a radioactive material to decrease in active by one half is called	A. half time B. half life C. disintegration time D. mean life
27	The half life of radioactive substances depends upon	A. amount of substance B. energy of substance C. state of substance D. temperature of substance
28	Different radioactive material have	A. same half lives B. different half lives C. same mean lives D. same total lives

29	The rate of decay of a radioactive substance	A. decrease exponentially with time B. decreases linearly with time C. increases linearly with time D. increases exponentially with time
30	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