ECAT Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	Radioactivity is	A. self disruptive activity B. spontaneous activity C. exhibited by all elements under proper conditions D. both 'a' and 'b'
2	Electrons are	A. positive charged B. negatively charged C. massless D. neutral
3	Radioactivity was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. All of them E. None of these
4	Alfa particles are	A. hydrogen nuclei B. helium nuclei C. electrons D. photons
5	Referring to the above figure, the binding energy per nucleon increases upto mass number equal to:	A. 50 B. 100 C. 150 D. 200 E. 250
6	The energy acquired by a mass of 1g moving with the speed of light is	A. 3 x 10⁸J B. 9 x 10¹³J C. 3 x 10¹³J D. 9 x 10¹⁶J
7	1 amu is equal to.	A. 1.66 x 10⁻²⁴kg B. 1.66 x 10⁻¹⁹kg C. 1.66 x 10⁻²⁴kg D. 1.66 x 10⁻²⁷kg
8	Curie is a unit of	A. reluctance B. resistivity C. binding energy D. radioactivity
9	A particle having the mass of electron and charge of a proton is called a	A. photon B. position C. antiproton D. antineutrino
10	The unit of decay constant is:	A. Second B. Metre C. Hour D. Year E. Second⁻¹
11	1 amu is equal to	A. 1.66 x 10⁻²⁴kg B. 1.66 x 10⁻¹⁹kg C. 1.66 x 10⁻³⁴kg D. 1.66 x 10⁻²⁷kg
12	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
13	The penetration power ofβ-particle is	A. zero B. less thanα-particle C. equal toα-particle D. greater than <span style="color

		D. greater than<span style= color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">α-particle
14	Rate of decay is actually described by.	A. Half line B. Decay constant C. Mean life D. Total life E. None of these
15	A pair of quark and antiquark makes a:	A. Meson B. Baryon C. Proton D. Neutron E. None of these
16	In his experiment on nuclear reactions, Rutherford bombardedα particles on:	A. Nitrogen B. Hydrogen C. Lead D. Oxygen E. Krypton
17	Neutron was discovered by	A. Curie B. Roentgen C. Chadwick D. Rutherford
18	When a nucleus emits an alpha particle, it atomic mass decreased by	A. 2 B. 1 C. 4 D. 3
19	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
20	According to Rutherford atomic model, the positive charge in an atom	A. is concentrated at its centre B. is in the form of positive electron at same distance from its centre C. is spread uniformly through its volume D. none of these