ECAT Physics Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	Three quarks make:	A. An electron B. A meson C. A baryon D. A photon E. None of these
2	When certain nucleus emits anα particle, its mass number:	A. Increases by one B. Decreases by one C. Remain same D. Decreases by four E. None of these
3	The half life of radioactive substances depends upon	A. amount of substance B. energy of substance C. state of substance D. temperature of substance
4	How much time, theα-particle more massive than an electron	A. 600 B. 7000 C. 5000 D. 15000
5	Radioactivity is	A. self disruptive activity B. spontaneous activity C. exhibited by all elements under proper conditions D. both 'a' and 'b'
6	U-238 present in the natural uranium is about:	A. 59% B. 0.007% C. 99% D. 39% E. 19%
7	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
8	Which of these is not a radiation detector	A. Wilson cloud chamber B. cyclotron acceleration C. Geiger Miller counter D. solid state detector
9	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
10	Maric Curie and Pieree Curie discovered two new radioactive elements, which are called	A. polonium uranium B. uranium and radium C. polonium and radium D. none of these
11	Which are not the elementary particles?	A. Photons B. Leptons C. Hadrons D. Quarks E. None of these
12	The chemical properties of all the isotopes of an elements are	A. same B. different C. slightly different D. none of these
13	There is present in paraffin a large amount of:	A. Nitrogen B. Hydrogen C. Carbon D. Baryllium E. Lithium

14	The isotope/s of hydrogen is /are:	A. Protium B. Deuterium C. Tritium D. Both (A) and (B) E. All of these
15	Neutron was discovered by	A. Curie B. Roentgen C. Chadwick D. Rutherford
16	For Protium, the mass defect is:	A. Infinite B. Zero C. Very large D. A few grams E. None of these
17	The diameter of an atom is of the order	A. 10⁻¹²⁵m B. 10⁻¹¹m C. 10⁻¹⁰m D. 10⁻⁹m
18	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
19	The total charge of any nucleus is given as	A. Ze² B. Z²e C. Z/e D. Ze
20	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