

## Physics ECAT Pre Engineering Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	The diameter of an atom is of the order	A. 10 <a href="mailto:10-sup">A. 10<a href="mailto:10-sup">sup<a href="mailto:10-sup">m</a> D. 10<a href="mailto:10-sup">sup<a href="mailto:10-sup">m</a> D. 10<a href="mailto:10-sup">sup<a href="mailto:10-sup">m</a></a></a></a></a>
2	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
3	In 1932 Chadwick discovered	A. proton B. neutron C. photon D. electron
4	A curie represents a very strong source of	A. <span style="color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">α-particle</span> B. <span style="color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">β-particle</span> C. <span style="color: rgb(34, 34, 34); font-family: arial, sans-serif; font-size: small;">γ-particle</span> D. none of these
5	In wilson cloud chamber, the air becomes saturated with:	A. Alcohol vapours B. Water C. Helium gas D. Nitrogen gas E. None of these
6	The unit of decay constant is:	A. Second B. Metre C. Hour D. Year E. Second <sup>-1</sup>
7	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
8	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
9	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
10	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
11	For Protium, the mass defect is:	A. Infinite B. Zero C. Very large D. A few grams E. None of these
12	Three quarks make:	A. An electron B. A meson C. A baryon D. A photon

A. One neutron only B. Two protons and one neutron C. Two protons and two neutrons D. Aany of above E. One proton only
A. electron B. proton C. photons D. all of these
A. decay atom B. decay element C. decay constant D. decay
A. molecules B. atoms C. elements D. isotopes
A. isotones B. isomers C. isotopes D. isobars
A. sex B. sec <sup>2</sup> C. sec <sup>-1</sup> D. sec <sup>-2</sup>
<ul><li>A. Wilson cloud chamber</li><li>B. cyclotron acceleration</li><li>C. Geiger Miller counter</li><li>D. solid state detector</li></ul>
A. 3 x 10 <sup>8</sup> J B. 9 x 10 <sup>13</sup> J C. 3 x 10 <sup>13</sup> J D. 9 x 10 <sup>16</sup> J