

## ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Rutherford performed an experiment on nuclear reactions in:	A. 1718 A.D. B. 1818 A.D. C. 1918 A.D. D. 2001 A.D. E. 1701 A.D.
2	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
3	In wilson cloud chamber, the air becomes saturated with:	A. Alcohol vapours B. Water C. Helium gas D. Nitrogen gas E. None of these
4	The unit of decay constant is:	A. Second B. Metre C. Hour D. Year E. Second <sup>-1</sup>
5	The reciprocal of decay constant $\lambda$ of a radioactive material is:	A. Frequency B. Half life C. Year D. Mean life E. None of these
6	Rate of decay is actually described by.	A. Half line B. Decay constant C. Mean life D. Total life E. None of these
7	When thorium nucleus emits $\alpha$ -particle, the daughter nucleus is called:	A. Protactinium B. Actinium C. Uranium D. Radium E. Redon
8	When certain nucleus emits $\alpha$ -particles, its mass number:	A. Remain same B. Increases by one C. Decreases by one D. Decreases by four E. None of these
9	When certain nucleus emits $\alpha$ particle, its mass number:	A. Increases by one B. Decreases by one C. Remain same D. Decreases by four E. None of these
10	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
11	The nucleus left after the emission of some radiation is called:	A. Parent nucleus B. Daughter nucleus C. Mother nucleus D. Any of these E. None of these
12	Marie curie and Pierre curie discovered:	A. Uranium B. Polonium C. Radium D. Both (A) and (C) E. Plutonium
13	Radium was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. Both (B) and (C)

		D. Rutherford E. Both (B) and (C)
14	Radioactivity was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. All of them E. None of these
15	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
16	Referring to the above figure, we can say that of all the elements, the most stable element is	A. Phosphours B. Iron C. uranium D. Lithium E. Bismuth
17	For Protium, the mass defect is:	A. Infinite B. Zero C. Very large D. A few grams E. None of these
18	The nucleus/nuclei of hydrogen is/are:	A. Proton B. Deuteron C. Triton D. All of these E. None of these
19	The isotope/s of hydrogen is /are:	A. Protium B. Deuterium C. Tritium D. Both (A) and (B) E. All of these
20	The nuclei of an element having the same charge number but different mass numbers are called:	A. Isobars B. Isotopes C. Isomers D. Isobaric E. Isothermal
21	Nucleus of a hydrogen atom may contain:	A. One neutron only B. Two protons and one neutron C. Two protons and two neutrons D. Aany of above E. One proton only
22	The figure 1.007276μ shows the mass of an:	A. Atom B. Positron C. Electron D. Neutron E. Proton
23	Nucleon means:	A. Only electrons B. Only neutrons C. Only protons D. Both (A ) and (C) E. Both (B) and (C)
24	Neutron was discovered by:	A. Rutherford in 1920 B. Chadwick in 1922 C. Bohr in 1913 D. Compton in 1927 E. None of these
25	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
26	The positron was discovered by:	A. In cosmic radiation B. In 1932 C. By Carl Anderson D. All above E. By direc
27	A particle having mass and charge equal to that of an electron is called:	A. Proton B. Positron C. Pion D. Pi-meson E. Both (C) and (D)
		A. Very high energy B. Very low energy

28	Photoelectric effect takes place with a photon of:	<div><div>D. very low energy</div><div>C. Low energy</div><div>D. High energy</div><div>E. None of these</div></div>
29	Compton shift refers to:	<div><div>A. Photon</div><div>B. Meson</div><div>C. Proton</div><div>D. Positron</div><div>E. Both (B) and (D)</div></div>
30	The year when A.H. Compton was awarded Nobel Prize is:	<div><div>A. 1923</div><div>B. 1927</div><div>C. 1931</div><div>D. 1935</div><div>E. None of these</div></div>