

## ECAT Physics Chapter 21 Nuclear Physics Online Test

Sr	Questions	Answers Choice
1	Radioactivity was discovered by	A. Rutherford B. Henri Becquerel C. Maxwell D. James Chadwick
2	Radioactivity	A. is exhibited more by semiconductors in general B. is 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
3	Binding energy per nucleus is	A. greater for heavy nucleus B. least for heavy nucleus C. greatest for light nuclei D. decreases for medium weight nuclei
4	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
5	The energy is found from Einstein's mass energy relation is called	A. binding energy of electron B. binding energy of proton C. binding energy of neutron D. binding energy of nucleus
6	The missing mass which is converted to energy in the formation of nucleus, is called	A. packing fraction B. mass defect C. binding energy D. none of these
7	The energy acquired by a mass of 1g moving with the speed of light is	A. $3 \times 10^{18}$ J B. $9 \times 10^{13}$ J C. $3 \times 10^{13}$ J D. $9 \times 10^{16}$ J
8	If 'V' is the relativistic speed and 'C' is the speed of light then according to Einstein the factor $V/C$ must always be	A. Equal to 1 B. Less than 1 C. Greater than 1 D. Infinity
9	1 amu is equal to.	A. $1.66 \times 10^{-24}$ kg B. $1.66 \times 10^{-19}$ kg C. $1.66 \times 10^{-24}$ kg D. $1.66 \times 10^{-27}$ kg
10	The mass of the nucleus is always less than the total mass of the protons and neutron that make up the nucleus. The difference of the two masses is called	A. nuclear fission B. nuclear fusion C. mass defect D. radioactivity
11	Neon gas has three isotopes whose atomic numbers are	A. 20, 24, 23 B. 20, 21, 22 C. 20, 19, 21 D. none of these
12	The most abundant isotope of neon is	A. neon-20 B. neon-21 C. neon-22 D. neon-23
13	A mass spectrograph sorts out	A. molecules B. atoms C. elements D. isotopes
14	The chemical properties of an element depend upon the number of	A. electron B. position C. photons D. neutrons

15

The chemical properties of all the isotopes of an elements are

- A. same
- B. different
- C. slightly different
- D. none of these