ECAT Physics Online Test

Sr	Questions	Answers Choice
1	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
2	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
3	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
4	If 'V' is the relativistic speed and 'C' is the speed of light then according to Einstien the factor V/C must always be	A. Equal to 1 B. Less than 1 C. Greater than 1 D. Infinity
5	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
6	The mass of the nucleus is always less than the total man 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. man defect D. radioactivity
7	Neon gas have three isotopes whose atomic numbers are	A. 20, 24 , 23 B. 20, 21 , 22 C. 20, 19 , 21 D. none of these
8	The most abundant isotope of neon is	A. neon-20 B. neon-21 C. neon-22 D. neon-23
9	A mass spectrograph sort out	A. molecules B. atoms C. elements D. isotopes
10	The chemical properties of an element depends upon the number of	A. electron B. position C. photons D. neutrons
11	The chemical properties of all the isotopes of an elements are	A. same B. different C. slightly different D. none of these
12	Hydrogen atom with only one proton and one neutron in its nucleus, and one electron, is called	A. deuterium B. protium C. tritium D. none of these
13	Hydrogen atom with only one proton in its nucleus, and one electron in its orbit is called	A. deuteron B. deterium C. protium D. tritium
14	How many isotopes of helium are present?	A. 1 B. 2 C. 3 D. 4
15	The number of isotopes of hydrogen are	A. 2 B. 1 C. 3 D. 4

16	Nuclei that have the same charge number but different mass number are called	A. isotones B. isomers C. isotopes D. isobars
17	Electrons are	A. positive charged B. negatively charged C. massless D. neutral
18	Neutrons are	A. positive charge B. negatively charged C. massless D. neutral
19	The diameter of an atom is of the order	A. 10⁻¹²⁵m B. 10⁻¹¹m C. 10⁻¹⁰m D. 10⁻⁹m
20	Structure of the nucleus was explained by	A. J.J Thomson B. Bohr C. Millikan D. Rutherford
21	Charge on proton is	A. 1.59 x 10⁻⁹C B. 1.59 x 10⁻⁷C C. -1.59 x 10⁻¹⁹C D. 1.59 x 10⁻¹⁹C
22	Mass of proton is of order of	A. 10⁻³¹gm B. 10⁻²⁷kg C. 10⁻²⁴gm D. 10⁺²⁷kg
23	The number if neutrons in the nucleus of $_{92}U^{235}$are	A. Infinite B. 92 C. 235 D. 143
24	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
25	For an atom having atomic number Z and atomic weight A, the charge on the nucleus is	A. A - Z B. A + Z C. Z D. A
26	The number of all the protons and neutrons in a nucleus is known as	A. atomic number B. mass number C. charge number D. none of these
27	The number of protons inside a nucleus is called	A. mass number B. atomic weight C. atomic number D. none of these
28	The total charge of any nucleus is given as	A. Ze² B. Z²e C. Z/e D. Ze
29	The nucleous of uranium -235 differs from a nucleous of a uranium -238 in that the later contains	A. 3 more neutrons B. 3 more electrons C. 3 more protons D. 3 more ions
30	For an atom having atomic number 'Z' and atomic weight 'A', the number of neutrons in the nucleous is	A. A - Z B. A C. Z D. A + Z