

Physics ECAT Pre Engineering Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	In his experiment on nuclear reactions, Rutherford bombardedα particles on:	A. Nitrogen B. Hydrogen C. Lead D. Oxygen E. Krypton
2	The number of protons inside a nucleus is called	A. mass number B. atomic weight C. atomic number D. none of these
3	Alfa , beta and gamma rays are emitted from a radio-active substance	A. spontaneously B. when it is heated C. when it is exposed to light D. When it interacts with the other particle
4	Which of these is not a radiation detector	A. Wilson cloud chamber B. cyclotron acceleration C. Geiger Miller counter D. solid state detector
5	The total charge of any nucleus is given as	A. Ze ² B. Z ² e C. Z/e D. Ze
6	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
7	The penetration power ofβ-particle is	A. zero B. less than α-particle C. equal to α-particle D. greater than α-particle
8	The isotope/s of hydrogen is /are:	A. Protium B. Deuterium C. Tritium D. Both (A) and (B) E. All of these
9	Curie is a unit of	A. reluctance B. resistivity C. binding energy D. radioactivity
10	The half life of uranium-238 is	A. 6.2 x 10 ⁹ years B. 4.5 x 10 ⁹ days C. 4.5 x 10 ⁹ years D. 1.3 x 10 ⁶ years
11	Neutron was discovered by	A. Curie B. Roentgen C. Chadwick D. Rutherford
12	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

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13	There is present in paraffin a large amount of:	A. Nitrogen B. Hydrogen C. Carbon D. Baryllium E. Lithium
14	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
15	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
16	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
17	U-238 present in the natural uranium is about:	A. 59% B. 0.007% C. 99% D. 39% E. 19%
18	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
19	The nucleus left after the emission of some radiation is called:	A. Parent nucleus B. Daughter necleus C. Mother necleus D. Any of these E. None of these
20	Charge on proton is	A. 1.59 x 10 ⁻⁹ C B. 1.59 x 10 ⁻⁷ C C1.59 x 10 ⁻¹⁹ C D. 1.59 x 10 ⁻¹⁹ C