

Physics ECAT Pre Engineering Chapter 21 Nuclear Physics

Sr	Questions	Answers Choice
1	Different radioactive material have	A. same half lives B. different half lives C. same mean lives D. same total lives
2	The unit of decay constant is	A. sex B. sec ² C. sec ⁻¹ D. sec ⁻²
3	Mass of neutron is	A. 1.67 x 10 ⁻³¹ kg B. 1.67 x 10 ⁻²⁷ kg C. 9.1 x 10 ⁻³¹ kg D. 1.67 x 10 ⁻ 19kg
4	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
5	In radio-active decay, the original element which disintegrate to another element is called	A. element B. daughter element C. parent element D. none of these
6	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
7	When certain nucleus emits a β -particles, is mass number:	A. Remain same B. Increases by one C. Decreases by one D. Decreases by four E. None of these
8	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
9	When certain nucleus emits an particle, its mass number:	A. Increases by one B. Decreases by one C. Remain same D. Decreases by four E. None of these
10	The rate of decay of a radioactive substance	A. decrease exponentially with time B. decreases linearly with time C. increases linearly with time D. increases exponentially with time
11	Which of these is not a radiation detector	A. Wilson cloud chamber B. cyclotron acceleration C. Geiger Miller counter D. solid state detector
12	Maric Curie and Pieree Curie discovered two new radioactive elements, which are called	A. polonium uranium B. uranium and radium C. polonium and radium D. none of these
13	Pair production take place when energy ofγ-rays photon is	A. equal to 1.02 Mev-B. greater than 1.02 Mev C. less than 1.02 Mev D. none of these
14	γ-rays are	A. electrostatic waves B. electromagnetic waves C. heavy particles D. longitudinal waves
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15	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
16	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
17	Neutron was discovered in	A. 1915 B. 1920 C. 1925 D. 1932
18	A mass spectrograph sort out	A. molecules B. atoms C. elements D. isotopes
19	The most abundant isotope of neon is	A. neon-20 B. neon-21 C. neon-22 D. neon-23
20	Alfa particles are	A. hydrogen nuclei B. helium nuclei C. electrons D. photons