

ECAT Pre General Science Online Test

Sr	Questions	Answers Choice
1	The range of particle depends upon the factor	A. charge, mass and energy of particle B. density of medium C. ionization potential of the atoms D. all the above
2	The distance travelled by α -particle in a medium before coming to rest, is called	A. range of γ- particle B. range of neutrons C. range of particle D. none of these
3	Which of the following material has smaller has life	A. uranium B. polonium C. radium D. radian
4	Which of the following material has longer half life	A. radium B. polonium C. radium D. uranium
5	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
6	The half lie of radium-226 is	A. 238 years B. 4.5 x 10 ⁹ days C. 1620 years D. 332 years
7	The unit of decay constant is	A. sex B. sec ² C. sec ⁻¹ D. sec ⁻²
8	Fraction of the decaying atoms per unit time is called	A. decay atom B. decay element C. decay constant D. decay
9	In radioactive decay, the new element which is formed due to the disintegration of original element is called	A. element B. daughter element C. parent element D. none of these
10	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
11	The emission of radiations take place in elements, having charge number greater than	A. 109 B. 82 C. 69 D. 52
12	The time required for a radioactive material to decrease in active by one half is called	A. half time B. half life C. disintegration time D. mean life
13	The half life of radioactive substances depends upon	A. amount of substance B. energy of substance C. state of substance D. temperature of substance
14	Different radioactive material have	A. same half lives B. different half lives C. same mean lives

A increase by four B. decrease by four C. increases by four D. decreases C. same 18 Phenomenon of radioactivity is due to disintegration of B. A nucleus B. neutron C. proton D. molecular D. decrease B. neutron D. decre	15	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
When radioactive nucleus emits aβ-particle, the proton-neutron ratio C. same C. same D. none of these D. none of the	16	After alpha decay the atomic number of the atom	B. decreases by two C. increases by two
Phenomenon of radioactivity is due to disintegration of C. proton D. molecule A curie represents a very strong source of C. proton S. A. span style="color: rgb(34, 34, 34); font-family arial; same-serif serifications of C. proton S. Span style="color: rgb(34, 34, 34); font-family arial; same-serif serifications of C. proton S. Span style="color: rgb(34, 34, 34); font-family arial; same-serif serifications of C. proton S. Span style="color: rgb(34, 34, 34); font-family arial; same-serifications of C. proton S. Span serifications of C. proton S. Span S. Span style="color: rgb(34, 34, 34); font-family arial; same-serifications of C. proton S. Span S. Span style="color: rgb(34, 34, 34); font-family arial; same-serifications of C. proton S. Span S. Span style="color: rgb(34, 34, 34); font-family arial; same-serifications of C. proton S. Span S. S	17	When radioactive nucleus emits a β -particle, the proton-neutron ratio	B. increase C. same
34): fort-family: anal, sans-serif, fort-size: small; "Por-particle-rispan" B. espan style="color: right3, 34, 34, 34, 34, 34, 34, 34, 34, 34, 3	18	Phenomenon of radioactivity is due to disintegration of	B. neutron C. proton
The rate of decay of radioactive substance C. varies inversely as time D. decreases inearly with time C. varies inversely as time D. decreases linearly with time A. 2.5 ev C0.85 ev D1.35 ev C0.85 ev D1.35 ev D1.35 ev D1.35 ev D1.36 ev D	19	A curie represents a very strong source of	34); font-family: arial, sans-serif; font-size: small;">α-particle B. β-particle C. γ-particle
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Position and momentum of a particle cannot both be measured simultaneously with perfect accuracy. This is the statement of 23 de-Broglies hypthesis was experimentally verified by 24 G.P. Thomson observer experimentally that electrons and neutrons possess 25 Davision and Germer performed experiment to verify 26 Wave nature of particle was proposed by 27 Momentum is a parameter associated with 28 With the help of 50 K v electron microscope, a resolution of 29 Which of the following phenomenon proves the particle nature of light A Maxwell B. Compton C. Compton of C. Compton of C. Compton effect D. uncertainty principle A Maxwell B. Compton C. Einstein B. A particle-like properties C. neither particle nor wave like properties D. none of these A de-Broglie hypothesis B. theory of relativity C. Newton's law of gravitation D. Mass-energy relation A Einstein B. Plank C. De-Broglie D. Max well A wave motion B. particle motion D. none of these A 0.5 to 1 m to possible D. 1 to 10 m is possible	21	The energy of the 4th orbit in hydrogen atom is	B 3.5 ev C0.85 ev
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30 An electron is accelerated through a potential difference of 50v, its de Broeile unvelongth is B. 1.74 x 10 ⁻¹⁰ cm	29	Which of the following phenomenon proves the particle nature of light	B. diffraction C. photoelectric effect
D. 1.74 x 10 ⁻¹⁰ m	30	An electron is accelerated through a potential difference of 50v. its de-Brogile wavelength is	B. 1.74 x 10 ⁻¹⁰ cm C. 17.4 x 10 ⁻⁶ m