ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	In Bohr model of hydrogen atom the distance between adjacent orbits increases away from the nucleus, the energy difference between the orbits	A. Increases B. Decreases C. Reaming same D. Orbits coincide
2	Energy of electron in the infinite Bohr orbit of H-atom is	A. 0 KJ/mole B. 1 KJ/mole C. -1 KJ/mole D. -1313.32 KJ/mole
3	Energy of electron in first orbit of H atom is	A. -45.32 KJ/mole B. -82.08 KJ/mole C. -52.53 KJ/mole D. -1313.31 KJ/mole
4	The radius of first orbit of H-atom is	A. 4.75 A° B. 3.84 A° C. 8.4 A° D. 0.529 A°
5	The order of distance between the various Bohr orbits is	A. $r_2 - r_1 > r_3 - r_2 > r_4 - r_3 > $ ...... B. $r_1 > r_2 > r_2 - r_3 > r_4 - r_3 > $ ..... C. $r_2 - r_1 = r_3 - r_2 = r_4 - r_3 > $ ..... D. $r_2 - r_1 > r_3 - r_2 < r_4 - r_3 < $ ....
6	Rutherford's planetary like picture of the atomic modal was defective because	A. It did not describe the quantity of positive charge B. It did not explain the repulsion of protons within the nucleus C. No empty space between nucleus and the electrons D. Moving electron should radiate energy
7	Smallest charge of electricity that has been measured so far is	A. Charge on a-rays B. Charge on electron (1.602 x 10^{-19}C) C. Charge on x-rays D. Charge on gamma rays
8	In Millikan method the oil droplet falls under the force of gravity but it moves upward due to	A. Electric field B. Magnetic field C. Incident light D. X-rays
9	In Millikan method for determination of charge on electron the air in the chamber is ionized by	A. Protons B. Electric field C. X-rays D. a - particles
10	Question Image	A. Neutrons are attracted by nucleus B. Neutrons carry out nuclear reactions C. Neutrons carry no charge D. Neutrons are electromagnetic radiations
11	When the 6d orbital is completed the entering electron goes into	A. 7f B. 7 s C. 7 p D. 7 d
		A. Gas molecules collide with anode

12	Positive particle in discharged tube is produced by ionization of gas molecules, which is caused by	B. Gas molecules are at high temperature C. Gas molecules produce X-rays D. Cathode rays remove electrons from gas molecules
13	When cathode rays strike the anode metal X-rays are emitted and not the positive rays because	A. Cathode rays are material particles B. Cathode rays knock out electrons from anode, which emit X-rays when outer electron take their place C. Cathode rays are absorbed by the nucleus D. Cathode rays become heated
14	e/m of cathode rays is same but for positive rays e/m changes by changing gas in the discharge tube because	A. Cathode rays are small sized particles B. Cathode rays have same charge C. Nature of cathode rays same for all gasses, but masses of nuclei are different for different gases D. Temperature of cathode rays higher
15	No cathode rays are produced in the discharged tube when gas is under ordinary pressure even if voltage of 5000 to 10000 is applies. This reason is	A. Voltage is low B. Discharge tube is not coloured C. Gas does not conduct current under ordinary pressure D. Temperature low
16	Cathode rays drive a small paddle wheel placed in their path. This observation shows that	A. Cathode rays travel in straight lines B. Cathode rays are negatively charged C. Cathode rays produce x-rays D. Cathode rays are material particles having momentum
17	The value of charge on electron is	A. 1.602×10^{-19} coulombs B. 1.602×10^{-18} coulombs C. 1.602×10^{-17} coulombs D. 1.602×10^{-16} coulombs
18	Question Image	A. s B. p C. d D. f
19	The rules which describe the distribution of electron in atomic energy levels are Auf-ban principle, Pauli's exclusion principle. Hunds rule. The pauli exclusion principle refers to the	A. Orientation of orbital in space B. Fact that two electrons in the same orbital should have opposite spins C. Energy of the orbital D. Spin of the electron
20	The principle quantum number describes	A. The distance form the nucleus B. The shape of the orbital C. The orientation of the orbital D. The spin of the electron
21	The wave length of electron as wave is 0.5 nm. What is the wave length in meter	A. 5×10^{-9} B. 5×10^{-12} C. 5×10^{-6} D. 5×10^{-10}
22	Orbitals having same energy are called	A. Hybrid orbitals B. Valence orbitals C. Degenerate orbitals D. D-orbitals
23	When 3p orbital is complete, the entering electron goes into	A. 4s B. 3d C. 4p D. 4f
24	In the ground state of an atom, the electron is present	A. In the nucleus B. In the second shell C. Nearest to the nucleus D. Farthest from the nucleus
25	Quantum number values for 2p orbitals are	A. n = 2, l = 1 B. n = 1, l = 2 C. n = 1, l = 0 D. n = 2, l = 0
		A. J.J. Thomson B. Crooks

26	The charge of an electron is determined by	B. Crooks C. Perrin D. R.A.Millikan
27	Pauli's principle is applicable to	A. Degenerate orbits B. Two electrons in the same orbital C. One electron D. None
28	The wave number of the light emitted by a certain source is $2 \times 10^6 m^{-1}$. The wavelength of this light will be	A. 500 nm B. 500 m C. 200 nm D. 5×10^7 m
29	The nature of the positive rays depend on	A. The nature of the electrode B. The nature of the discharge tube C. The nature of the residual gas D. All of the above
30	E = hv is the	A. Spectral equation B. Plank's equation C. de Broglie's equation D. None of these