ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	The overlapping of two partially filled atomic orbital is in such a way that the probability of finding the electron pair is maximum along the axis joining the two nuclei, the bond is	A. Sigma bond B. Pi bond C. Ionic bond D. Non-polar bond
2	One of the following bonds is polar but compound is non-polar	A. H₂O B. NH₃ C. HCl D. CO₂
3	The bond order for He_2 molecule is	A. zero B. 1/2 C. 1 D. 2
4	Tripple bond is present in	A. O₂ B. H₂ C. N₂ D. Cl₂
5	Coordinate covalent bond is present in the molecules	A. H₂O B. BF₃ C. SiO₂ D. SO₂
6	The bond order O_2 molecule is	A. 1 B. 2 C. 3 D. Zero
7	Which is made by coordinate covalent bond	A. H₃O⁺ B. H₂O C. CH₄ D. HCl
8	When the electron jumps form second third, fourth orbit to the fist orbit, the transitions are known as	A. Balmer series B. Lyman series C. Pfund series D. Brackett series
9	When the electron jumps form third, fourth, fifth orbits to the second orbit, the transitions are known as	A. Paschen B. Pfund C. Balmer D. Brackett
10	Photons of yellow colour are _____ energetic than violet colour	A. More B. Less C. Equal D. None
11	The quantum number which describe the orientation of the orbitals is	A. Spin quantum number B. Principle quantum number C. Azimathal quantum number D. Magnetic quantum number
12	The quantum number which describes the shape of the orbital is	A. Principle quantum number B. Spin quantum number C. Azimathal quantum number D. Magnetic quantum number
13	Balmer's series is in _____ region	A. Visible B. U V C. I. R. D. None
14	The range of visible spectrum is	A. 300 - 600 nm B. 600 - 900 nm C. 400 - 750 nm D. 100 - 300 nm
15	n + l value for 4f will	A. 2 B. 5 C. 7 D. 9

16	Neutrons was discovered by	A. Mosely B. Milliken C. Chadwick D. Ruherford
17	Charge to mass ratio (e/m) of the electron is determined by	A. R. A. Millikan B. J. J. Thompson C. G. J, Stoney D. None of these
18	Cathode rays emitted from cathode are	A. Canal rays B. Protons C. Electrons D. Positrons
19	The value of R (Rydberg's constant) is _____ m-1	A. 1.0974 x 107 B. 1.0842 x 107 C. 1.082 x 10-7 D. Both a and b
20	Which of the atoms has $1s^2$, $2s^2$, $2p_x^2 2p^1_y 2p^1_z$ configuration	A. Nitrogen B. Carbon C. Fluorine D. Oxygen
21	Electrons in degenerate orbitals are placed in separate orbitals with same spin according to	A. Hund's rule B. Pauli exclusion principle C. Aufbau principle D. Mosley's law
22	An electron with n = 3 , l = 2 will be in the sub-shell	A. 3p B. 3d C. 3f D. 3s
23	If the value of azimuthal quantum number is 3, then values of m the magnetic quantum no. will be	A. 0, 1, 2, 3 B. +3, +2, +1, -1, -2, -3 C. 0, -1, -2 ,-3 D. -3, 0, +3
24	The order of frequency of the following radiations unltraviolet, visible, infrared and microwave is	A. Microwave > infrared > visible > ultraviolet B. Visible > ultraviolet > microwave > infrared C. Ultraviolet > visible > infrared > microwave D. Infrared > microwave > ultraviolet > visible
25	Which have better penetrating power	A. Alpha rays B. Beta rays C. Gamma rays D. X-rays
26	The radiations with wavelength shorter than violet light are called	A. Ultraviolet B. Infrared C. Microwave D. Radio frequency
27	Spectrum of white light is continuous becuase	A. Colors separated by dark spaces B. There are no boundary lines between the colours C. The radiations are in infrared region D. The radiatins fall in ultraviolet region
28	The number of isotopes of gold is	A. 3 B. 1 C. 2 D. 4
29	Isotopes of an element differ in	A. Number of protons B. Number of electrons C. Number of neutrons D. Number of electrons and protons
30	The phenomenon of isotropy was first discovered by	A. Soddy B. Rutherford C. Bohr D. Dalton