ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	The electronic configuration of an atom/ion can be defined by the following	A. Aufbau principle B. Pauli's exclusion principle C. Hund's Rule D. All the above
2	Number of neutrons in heavy hydrogen atom is	A. 0 B. 1 C. 2 D. 3
3	The number of spherical nodes in 3p orbitals are	A. One B. Three C. Non D. Two
4	The spectrum of helium is expected to be similar to that of	A. H B. Li⁺ C. Na D. He⁺
5	Subsidiary quantum number specifies	A. size of orbital B. shape of orbital C. orientations of orbitals D. Nuclear stability
6	Sodium chloride imparts a yellow colour to the Bunsen flame. This can be interpreted due to the	A. low ionization energy of sodium B. sublimation of metallic sodium to give yellow vapour C. emission of excess energy absorbed as a radiation in the visible region as a radiation in the visible region D. photosenitivity
7	The number of neutrons in the element $^{9}_{4}Be$ is	A. 4 B. 5 C. 9 D. 13
8	The valence orbital configuration of an element with atomic number 23 is	A. 3d⁵ B. 3d³, 4s² C. 3d³, 4s¹, 4p¹ D. 3d²,4s²,4p¹
9	Which quantum number is sufficient to describe the electron is hydrogen atom?	A. l B. n C. m D. s
10	When electrons revolve in stationary orbits	A. There is no change in energy level B. They vecome stationary C. They are gaining kinetic energy D. There is increase in energy
11	The symbol of the element whose atoms have the outer most electronic configuration $2s^2 2p^3$is	A. N B. Li C. P D. Na
12	The number of electrons in the M shell of the element with atomic number 24 is	A. 24 B. 12 C. 13 D. 8
13	The maximum number of electrons in a subshell for which l = 3 is	A. 14 B. 10 C. 8 D. 4
14	The ratio of the ionization energy of H and $Be^{3+}$is	A. 1 : 1 B. 1 : 3 C. 1 : 9 D. 1 : 16

15	The mass of the neutron is of the order of	A. 10⁻²³kg B. 10⁻²⁴kg C. 10⁻²⁶kg D. 10⁻²⁷kg
16	The credit of discovering neutron goes to	A. Rutherford B. Langmuir C. Chadwick D. Austen
17	With increasing principle quantum number, the energy difference between adjacent energy levels in H atom	A. Decreases B. Increases C. Remains constant D. Decreases for low value of Z and increase for higher value of Z
18	Question Image	
19	What is not true about DNA	A. It preserve genetic information B. To relicates C. Synthesized protein D. It has a linear structure
20	RNA is a polymer of nucleotide which consist of three components. Which one is not the component in the nucleotide of an RNA	A. D-Ribose B. Wracil base C. Prosphate group D. Thyamine base
21	DNA is a polynucleic acid. The monomer is known as a nucleotide. What is not the component of the nucleoptide	A. Phosphate group B. Deoxy ribose sugar C. Uracil base D. Adenine base
22	Enzymes catalyse all biological reactions occurring in the cell. What is true about an enzyme	A. Enzyme is a small molecule B. Enzyme is acidic in nature C. Enzyme is a protein D. Enzyme is a lipid
23	There are 20 amino acids found in protein which is not the property of these amino acids	A. They are allα-amino acids B. They are all optically active C. They have high decomposition point D. They are water soluble
24	Which functional group is present in glycerol tristearate	A. Carboxylic acid B. Alcohol C. Aldehyde D. Ester
25	At what pH glycine shows the structure H_{3N}^{+}-- CH_2-- COOH	A. 2 B. 7 C. 10 D. 14
26	Glycine at pH7 has the structure	A. H₂N -- CH₂-- COOH B. H₃N⁺-- CH₂-- COOH C. H₂N -- CH₂COO⁻ D. H₃N⁺-- CH₂-- COO⁻
27	Which teat is not given by both glucose and fructose	A. Give yellow ppt of CHI₃with alkaline aqueous iodine B. With 2, 4-DNPH give yellow ppt of hydrazone C. Evolve H₂gas with Na metal D. Oxidised with [Ag(NH₃) ₂]⁺i.e. Tollen's reagent
28	A nucleoside may be	A. Ribonuleoside B. Deoxyribonucleoside C. Both a and b D. None
29	The proteins which are derived by conjugated proteins are called as	A. Simple protein B. Complex protein C. Derived protein D. None
30	How is the secondary structure of protein stabilized	A. Through hydrogen bonding B. Through ionic bonding C. Through van der wall forces D. Through covalent bonding