

PPSC Chemistry Full Book Test

Sr	Questions	Answers Choice
1	Which of the following symmetry element leaves the molecule or an object unchanged.	A. Proper rotation B. Improper rotation C. Inversion axis D. Identity
2	Which of the following item is not symmetry element.	A. Plane of symmetry B. Inversion centre C. Improper rotation D. Optical activity
3	'A line, a point or a plane about which a symmetry operation is performed, is known as.	A. Symmetry operation B. Symmetry element C. Reflection D. Inversion
4	The reverse of photo chemical reaction is called.	A. Phosphorescence B. Chemiluminescence C. Fluorescence D. Photosensitization
5	Reaction in which molecules absorbing light do not themselves react but induce other molecules to react are called.	A. Chain reactions B. Photosensitized reactions C. Reversible reactions D. Free radical reactions
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7	The Lambert beer law states that	A. Transmission is directly proportional to path length B. Transmission is directly proportional to concentration C. Absorbance is inversely proportional to transmission D. Absorbance is directly proportional to concentration.
8	The extinction coefficient has the units.	A. $\text{cm}^2 \text{ mol}^{-1}$ B. $\text{cm}^3 \text{ mol}^{-1}$ C. mol cm^{-3} D. mol cm^{-1}
9	The value of an Einstein	A. Is independent of wavelength B. Decrease with increase in wavelength C. Increase with increase in wavelength D. Depends on the temperature of the absorbing system
10	Which of the following statement is correct.	A. The wavelength of phosphorescence is less than the wavelength absorbed B. The transition from $T_{1/2}$ to $S_{0/0}$ without the emission of light is called phosphorescence C. The combination CO_2 and water in plants, in the presence of chlorophyll, is an example of bioluminescence. D. Population inversion is a necessary condition for laser action
11	According to the Grothus -Draper law	A. Only absorbed light is effective in producing photo chemical changes B. Only light between certain wavelengths C. Light is effective only for photo chemical reactions in solution D. The light absorbed is proportional to its intensity
		A. Always less than unity

12	The quantum yield of a Photo chemical reaction in	B. Always equal to unity C. Always greater than unity D. Can have any value > 0 depending on the reaction
13	The molecule returns from the first excited triplet state to the ground state singlet. The light emitted is known as.	A. Inter system crossing B. Phosphorescence C. Fluorescence D. Quenching
14	Which of the following statement is not related with high quantum yield reasons.	A. Formation of reactive intermediates which may act as catalyst B. The active molecules may collide with other molecules and activate these molecules. C. The reaction may be exothermic and heat evolved may activate other molecule D. The primary photo chemical process may be reversed
15	Which of the following statement is not true with respect to photo chemical reactions.	A. These take place in the presence of light B. Free energy of these reactions may be positive or negative C. Light intensity affects these reactions D. Temperature has significant effect on rate of these reactions
16	Which of the following reactions does not take place with light radiation.	A. Oxidation B. Reduction C. Polymerization D. Double displacement
17	A molecule returns from the excited singlet state to the ground singlet state with emission of light. This process is known as	A. Fluorescence B. Scattering C. Phosphorescence D. Chemiluminescence
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19	The unit of photon is known as	A. Quantum B. Einstein C. Energy Packet D. None of the above
20	The glow of the yellow phosphorous as a result of slow oxidation in air is called.	A. Chemiluminescence B. Luminescence C. Bioluminescence D. Photolysis
21	The unit of photon is known as.	A. Quantum B. Einstein C. Energy packet D. None of the above
22	The multiplicity of the electronic state is equal to.	A. $S + 1$ B. $2S + 1$ C. $2S - 2$ D. $2S + 2$
23	The glow of yellow phosphorous as is result of slow oxidation in air is called.	A. Luminescence B. Chemiluminescence C. Bioluminescence D. Photolysis
24	The emission of light in a biological reaction is known as	A. Fluorescence B. Phosphorescence C. Bioluminescence D. Photolysis
25	The emission of light in a biological reaction is known as.	A. Fluorescence B. Phosphorescence C. Bioluminescence D. Photolysis
26	The branch of chemistry dealing with the study of reactions in the UV visible region of the spectrum is known as.	A. Kinetics B. Photo chemistry C. Surface chemistry D. Catalysis
27	The experimental relationship between rate of the reaction and concentration of the reactants is called.	A. Rate law B. Law of mass action C. Le-Chatelier's principle D. Rate constant

28	Which of the following statement is not related to collision theory.	A. Molecules must collide with each other to do a chemical reaction B. Molecules must possess a minimum amount of energy C. Molecules must have proper orientation D. Collision theory is applicable to liquid only.
29	Which of the following is not a true characteristic of a catalytic reaction.	A. The amount and chemical composition of the catalyst remains unchanged after the reaction B. The catalyst does not initiate a chemical reaction C. The reaction in which product also act as catalysts are called autocatalytic reactions. D. The catalyst shifts the equilibrium position of a reaction in a favorable direction
30	In the kinetic study of a reaction A _____ products. A straight line was observed when a graph between time and $1/C_2$ was plotted. the reaction is.	A. Second order B. First order C. Third order D. Zero order