

PPSC Chemistry Full Book Test

| Sr | Questions | Answers Choice |
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| 1 | Identify the incorrect statement regarding crystallization from the following. | A. It is an important procedure for purifying solids B. The impurities are removed by filtering the solution C. Crystals are separated by filtration D. In crystallization method, the solid is dissolved in a solvent in which it is soluble at all temperature. |
| 2 | An impure sample of camphor contaminated with sand, can be purified by | A. Distillation B. Sublimation C. Steam distillation D. None of the above |
| 3 | Sugar and common salt in a mixture can be separated through then process of. | A. Sublimation B. Distillation C. Ion exchange D. Crystallization from solution in ethanol |
| 4 | Recrystallization is the most common technique of purification of solid organic substances Which of the following statements is not related with characteristics of a suitable solvent. | A. It dissolves the substance on heating B. It readily allows it to separate out in the form of crystal on cooling C. It does not react chemically with substance D. It does dissolve the impurities. |
| 5 | Which of the following techniques is involved in purification of organic compound. | A. Distillation B. Sublimation C. Solvent extraction D. All above |
| 6 | When of the following steps is involved in structure determination of an organic compound. | A. Purification of compound. B. Qualitative and quantitative analysis of elements present C. Determination of molar mass D. All above steps |
| 7 | Which of the following compounds has highest dipole moment. | A. Dichloromethane B. Chloroform C. Chloromathane D. All above |
| 8 | The most stable carbonium ion is | A. See butyl B. n-butyl C. Tert butyl D. None of the above |
| 9 | Which of the following statement is false about resonance. | A. It increase the stability of a molecule B. It leads to similar type of bonds C. It increase the reactivity of the molecule D. It decrease the reactivity of the molecule. |
| 10 | Which statement is true. | A. Resonance hybride are inherently unstable. B. Resonance hybride are more static than any individual resonance form C. Resonance hybride are average of all resoance forms resembling the more stabel forms D. None of the above |
| 11 | The bond length of C = C is | A. 1.20 Å B. 1.34 Å C. 1.54 Å D. 1.68 Å |
| 12 | The bond angle between hybrid orbitals in methane is | A. 115.5° B. 109.5° C. 105.7° D. 102.9° |

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| | | D. 120 ^o |
| 13 | Which of the following is a planar molecule. | A. Acetone B. Formic acid C. Acetic acid D. All above |
| 14 | The greater stability of benzyl carbonium ion as compared to t-butyl carbonium ion is due to. | A. Inductive effect B. Resonance effect C. Electrometric effect D. All above |
| 15 | All bond length in benzene are identical due to. | A. Resonance effect B. Inductomeric effect C. Electromeric effect D. Mesomeric effect |
| 16 | Trimethylamine is a weaker base than dimethylamine is explained by | A. Steric effect B. Resonance effect C. Inductive effect D. All above |
| 17 | Which of the following effects best explains that o-nitro phenol is insoluble in water. | A. Inductive effect B. Resonance effect C. Intramolecular H-bonding D. Isomeric effect |
| 18 | Which of the following is most acidic. | A. Phenol B. p-nitrophenol C. o-Nitrophenol D. m-Nitrophenol |
| 19 | Which of the following is most basic. | A. Aniline B. Benzylamine C. Diphenylamine D. N-methylaniline |
| 20 | Which of the following group will have hyper conjugation effect when attached to benzene. | A. ----- CH ₃ B. ----C ₆ H ₅ C. -----C(CH ₃) ₃ D. -----CH(CH ₃) ₂ |
| 21 | Chlorine when attached to benzene has | A. +1 and + R effect B. -1 and - R effect C. -1 and +R effect D. None of the above |
| 22 | C - O bond lengths in carboxylate anion are equal due to. | A. Resonance effect B. Inductive effect C. Resonance of identical contributing structures. D. Hyperconjugation |
| 23 | The criteria for aromaticity is presence of | A. Uneaturations B. Cyclic structure C. Presence of 4nx electrons D. Presence of 4n + 2n electrons |
| 24 | The denationalization involving C - H sigma bond electrons is known as . | A. Conjugation B. Hyperconjugation C. Mesomerism D. Resonance |
| 25 | Compounds consisting of two or more interlocked rings are called. | A. Inclusion compounds B. Cage compounds C. Catenanes D. Crown ether |
| 26 | Cyclic polymers of ethylene glycol formed by condensation are called. | A. Crown ether B. Brown ether C. Cryptates D. Both A and C |
| 27 | The common host compound for the formation of inclusion compound is. | A. Urea B. Thiourea C. Cholic acid D. All above |
| 28 | The compounds whose formation require a host compound and a guest compound are called. | A. Exclusion compounds B. Inclusion compounds C. Crystal compounds D. None of the above |
| 29 | Which of the following statements is not correct with respect to applications of H- bonding. | A. It explains the usual b.p. and m.p. of certain class of compound. B. It explains the solubility of certain organic compounds in hydroxylic solvents C. It explains the lack of ideal behavior in gases and solutions |

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D. It has strong influence on the
configuration of certain molecules.

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In hydrogen bonding a hydrogen atom is bonded to which of the highly electronegative atoms.

- A. N
- B. O
- C. F
- D. N, O, F