

NAT II Physical Science Chemistry

Sr	Questions	Answers Choice
1	The spectrum of helium is expected to be similar to that of	A. H B. Li C. Na D. He
2	In crystal structure of sodium chloride, the arrangement of Cl ⁻ ions is	A. Fcc B. Both Fcc and bcc C. Bcc D. None of these
3	The treatment of benzene with isobutene in the presence of sulphuric acid give	A. isobutyl benzene B. tert-Butyl benzene C. n- Butyl benzene D. no reaction
4	Which of the following is acidic?	A. SO ₃ B. N ₂ O C. BeO D. HgO
5	Ethyl chloride on treatment with aqueous alkali gives	A. Ethane B. Ethene C. Ethanal D. Ethanol
6	Which of the following process is used to separate insoluble particles from liquids?	A. Separation B. Filtration C. Crystallization D. Condensation
7	Carbon atom holding halogen in aryl halides is	A. sp ² -hybridised B. sp ³ -hybridised C. sp-hybridised D. sp ³ d-hybridised
8	Dilute hydrochloric acid solution cannot be concentrated by boiling beyond	A. 11% B. 33% C. 44% D. 22%
9	1-Chloropropane has two isomers. It is an example of	A. Chain isomerism B. Position isomerism C. Function group isomerism D. Metamerism
10	The halide which is not hydrolysed is	A. SiCl ₄ B. SiF ₄ C. CCl ₄ D. PbCl ₄
11	The rate of reaction between A and B increases by a factor of 100, and when the concentration with respect to A is increased 10 folds, the order of reaction w.r.t. A is	A. 10 B. 1 C. 4 D. 2
12	The density of nitrogen gas prepared from air is slightly greater than that of nitrogen prepared by a chemical reaction from a compound of nitrogen due to the presence of the following in aerial nitrogen.	A. Argon B. CO ₂ C. Some nitrogen molecules analogous to O ₂ D. Greater amount of nitrogen molecules derived from N ¹⁵ isotope.
13	Which of the following is directly related to Qualitative analysis?	A. Identification B. Separation C. Measurement D. Calculation
14	Which of the following does not reflect the periodicity of elements?	A. Bonding behaviour B. Electronegativity C. Ionisation potential D. Neutron/proton ratio
15	Causticisation process is used for the preparation of	A. Caustic soda B. Caustic potash C. Baryta solution D. Chlorine

D. Slaked lime

16	Toluene can be oxidized to benzoic acid by	A. KMnO_4 (alk) B. $\text{K}_2\text{Cr}_2\text{O}_7$ (acidic) C. Both D. None
17	Covalent compounds are soluble in	A. Polar solvents B. Non-polar solvents C. Concentrated acids D. All solvents
18	Sulphonation of benzoic acid produces mainly	A. o-Sulphobenzoic acid B. m-Sulphobenzoic acid C. p-Sulphobenzoic acid D. o- and p-Sulphobenzoic acid
19	The pure crystalline substance on being heated gradually first forms turbid liquid at constant temperature and still at higher temperature turbidity completely disappears. The behaviour is a characteristic of substance forming	A. Allotropic crystal B. Liquid crystals C. Isomeric crystals D. Isomorphous crystals
20	Which of the following represents elements in order of increasing atomic size?	A. I, Br, Cl B. Na, Mg, C C. C, N, O D. Li, Na, K