

NORTH-EX PUBLIC SCHOOL

Periodic Test

Time : 1hour 20 min

Paper : Chemistry(XII)

M.M. : 40

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Note: Each question carry 5 marks.

- (a) The deficiency of which vitamin causes the disease pernicious anemia ?
(b) Write structure of monomers of the following (i) Nylon 6,6 , (ii) PHBV, (iii) Dacron
(c) Give one example of a chemical substance which can be used both an antiseptic as well as disinfectant.
- (a) Explain the following terms with suitable example: (i) Denaturation of protein, (ii) Peptide linkage ,
(iii) Glycosidic Linkage ,
(b) Differentiate between Globular protein and Fibrous protein with two examples?
- (a) Differentiate between LDP and HDP with examples?
(b) Explain the following terms with suitable example: (i) Tranquilizers, (ii) Analgesics, (iii) Broad spectrum antibiotics.
- (a) What are the hydrolysis products of (i) sucrose and (ii) lactose ?
(b) What happens when D-glucose is treated with the following reagent ? (i) HI (ii) Bromine water (iii) HNO_3 .
(c) What is allosteric site.
- (a) A solution of $[\text{Ni}(\text{H}_2\text{O})_6]^{2+}$ is green but a solution of $[\text{Ni}(\text{CN})_4]^{2-}$ is colourless.
(b) Draw figure to show the splitting of d orbitals in an octahedral crystal field.
(c) Write IUPAC names of the following compounds: (i) $[\text{Co}(\text{NH}_3)_6]$ $[\text{Cr}(\text{CN})_6]$, (ii) $[\text{CoCl}_2(\text{en})_2]^+$, (iii) $[\text{Ni}(\text{CO})_4]$, (iv) $\text{K}_3[\text{Fe}(\text{C}_2\text{O}_4)_3]$.
- (a) The choice of the reducing agent in a particular case depends on thermodynamics factor. How far do you agree with this statement? Support your answer?
(b) Outline the principles of refining of metals by the following methods: (i) Zone refining, (ii) Electrolytic refining, (iii) Vapour phase refining.
- (a) What is crystal field splitting energy ? How does the magnitude of Δ_o decide the actual configuration of d orbitals in coordination entity ?
(b) Draw figure to show the splitting of d orbitals in an octahedral crystal field.
(c) Write short note on froth floatation method.
- (a) Define thermoplastic and thermosetting polymer with two examples each.
(b) Why is use of aspartame limited to cold foods and soft drinks?
(c) What are the main constituent of Dettol?
(d) Write the monomer(s) of any biodegradable polymer?

