

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 as an antiseptic as well as a disinfectant.
- (a) Explain the following terms with suitable examples: (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 examples: (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 an 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 a 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 thermodynamic factors. 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 a coordination entity?
(b) Draw a figure to show the splitting of d orbitals in an octahedral crystal field.
(c) Write a short note on the froth floatation method.
- (a) Define thermoplastic and thermosetting polymer with two examples each.
(b) Why is the use of aspartame limited to cold foods and soft drinks?
(c) What are the main constituents of Dettol?
(d) Write the monomer(s) of any biodegradable polymer?

