

ATOMIC ENERGY CENTRAL SCHOOL NO. 3 RAWATBHATA
PERIODIC TEST -I (2019-2020)

CLASS –X	SUB: SCIENCE	Time: $\frac{1}{12}$ Hrs.	M.M: 40
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CHEMISTRY

1. Write the balance chemical equation for the following : (1)
 - i) Zinc Carbonate(s) -----> Zinc Oxide(s) + Carbon dioxide(g).
 - ii) Sodium Sulphate(aq) + Barium Chloride (aq) -----> Barium Sulphate(s) + Sodium Chloride(aq)
2. Explain with suitable example what is oxidation and reduction reaction. (2)
3. What is rancidity? Write two methods to prevent it. (2)
4. Explain the following with appropriate examples. (3)
 - i) Endothermic Reaction. ii) Displacement Reaction. iii) Decomposition Reaction.
5. a) A solution of substance X is used for white washing. (5)
 - i) Name the substance X and write its formula.
 - ii) Write the reaction of substance X with water
 - b) Why is the respiration considered an exothermic reaction ?Explain.

BIOLOGY

1. Write the chemical eq. for the process of Photosynthesis in plants. (1)
2. What is the role of acid in our stomach? (1)
3. What are the different ways in which glucose is oxidized to provide energy in various organisms? (2)
4. Explain: (2)
 - i) Water and mineral transport in plants.
 - ii) Food transported in plants.
5. How is oxygen and carbon dioxide transported in human beings ?Explain. (3)
6. a) Draw a neat labelled diagram of human Heart. (5)
 - b) Write short note on human excretory system.

PHYSICS

- Q1 Define Ohm's law . (1)
- Q2 Define resistivity. State the relation between the resistance of a conductor, its resistivity, its length and its area of cross section. (2)
- Q3 An electric motor takes 5A from a 220V line. Determine the power of the motor and the energy consumed in 2 hours. (2)
- Q4 Explain three applications of heating effect of current. (3)
- Q5 (a) Derive the expression for resultant resistance of the series combination of three resistances R_1 , R_2 and R_3 . (3)
- (b) If the rating of an electric heater is 2KW-220V. Calculate: (2)
 - (i) the current drawn
 - (ii) the resistance of the heater