LOYOLA SCHOOL, BHUBANESWAR

Second Class Evaluation – November 2025

Class: IX	**Subject: Chemistry**	**F.M.= 20**	**Time: 40 mins.**

Q1. Select the correct answer from the options given: **[5]**

i. What is the effect of heating on pressure of gas in a container? :
(a) It increases (b) It decreases
(c) It remains constant (d) It depends on type of gas

ii. What will be the volume of gas at absolute zero temperature under constant pressure?
(a) 1000 ml (b) 0 ml
(c) 273 ml (d) 100 ml

iii. The volume of any gas at this temperature becomes zero:
(a) +273°C (b) - 273°C
(c) 273 K (d) 546°C

iv. Which of the following explains the bursting of balloon ,when kept in bright sunlight?
(a) Boyle's law (b) Charle's law
(c) Diffusion (d) Kinetic theory

v. A gas is enclosed in a cylinder under STP conditions. Keeping pressure constant, if volume of gas is doubled, what will be the new temperature?
a. Half of its initial temperature
b. Four times of its initial temperature
c. Double its initial temperature
d. Three times its initial temperature.

Q2. Give reasons: **[2]**

i. All temperatures on the kelvin scale are in positive figures.
ii. Volumes of gases are converted into s.t.p. conditions and then compared.

Q3. Define/ state: **[2]**

i. Charle's law
ii. Boyle's law

Q4. Fill in the blanks: **[3]**

i. The temperature on the kelvin scale at which molecular motion completely ceases is called _____.
ii. If the temperature is reduced to one half, the _____ would also reduce to one half.
iii. The melting point of ice is _____ kelvin.

Q6. Numerical: **[2 + 2 + 4]**

i. The volume of a certain gas at constant temperature was found to be 900 cc under a pressure of 760 mm Hg. Calculate the pressure at which volume of the gas will be reduced by 30% of the original volume, the temperature remaining constant throughout.

ii. To what temperature (in degree centigrade) should a sample of gas be cooled from 25°C to reduce its volume to half its initial value, at constant pressure?

iii. A gas X at a pressure of 750 mm of Hg and temperature of 38ºC has a volume of 2.57 litres. Find the volume of the gas X at s.t.p.

**********ALL THE BEST**********