



**ST. LAWRENCE HIGH SCHOOL**  
**A JESUIT CHRISTIAN MINORITY INSTITUTION**



Sub: Physical Science

Class: 8

Date: 27.03.21

Duration: 40 min

Worksheet Solutions 21

Full Marks: 15

**ATOMIC STRUCTURE/CATHODE RAYS**

**Choose the Correct options:**

- At what pressure does a gas become conducting?  
Ans (a) 15 cm Hg (b) 10 cm Hg (c) 1 cm Hg (d) **10 mm Hg**
- At what voltage does a gas become conducting?  
Ans (a) 10V (b) 100 V (c) 1000 V (d) **10000 V**
- Apparatus in which a gas is made conducting is called  
Ans (a) conducting (b) charging station (c) **discharge tube** (d) vacuum flask tubules
- The electrode connected to the negative end of the source is called  
Ans (a) Erode (b) Anode (c) **Cathode** (d) Mode
- The tube on the other end of the cathode starts glowing due to the phenomenon of  
Ans (a) **fluorescence** (b) phosphorescence (c) spectral emission (d) Dispersion
- Scientist who discovered Cathode rays is  
Ans (a) Dalton (b) **J.J. Thomson** (c) Neils Bohr (d) Rutherford
- Cathode rays travel as  
Ans (a) **straight lines** (b) sinusoidal waves (c) pulses (d) convection currents
- Cathode rays consist of  
Ans (a) waves (b) energy (c) **particle** (d) All of these
- Charge of the cathode rays is  
Ans (a) **negative** (b) positive (c) neutral (d) None of these
- Cathode rays are deflected by  
Ans (a) Electric fields (b) Magnetic fields (c) Gravitational fields (d) **All of these**
- The function of the exhaust pump in a discharge tube is to  
Ans (a) **decrease pressure** (b) increase temperature (c) Harvest electrons (d) None of these
- The positively charged electrode is called  
Ans (a) **Anode** (b) Erode (c) Synode (d) Cathode
- The charge on an electron is  
Ans (a) -1 unit (b)  $-1.6 \times 10^{-19} \text{ C}$  (c) 1 C (d) **Both (a) and (b)**
- What is the ratio of mass of an electron to the mass of the Hydrogen atom  
Ans (a) 1: 1000 (b) 1: 184 (c) **1: 1840** (d) 1: 100
- The term electrons were applied to the particles of cathode ray in the year  
Ans (a) 1823 (b) 1934 (c) 1901 (d) **1897**